

CITY AND COUNTY OF BRISTOL



THE
HEALTH OF BRISTOL
IN
1952

R. H. PARRY

M.D., F.R.C.P., D.P.H., Q.H.P.

Medical Officer of Health

THE HEALTH OF BRISTOL IN 1952

CONTENTS

The report is published in six sections (A-F). Each section is paged separately with the section indicated by a capital letter, printed over the page number for easy reference. Most of the sections have a separate index of contents.

SECTION	PAGE
A. GENERAL REVIEW OF LOCAL AUTHORITY HEALTH SERVICES	
1. The health of the City and County of Bristol (Medical Officer of Health's Survey)	1-6
2. Vital Statistics	7-15
3. Prevalance of Infectious Diseases	16-22
4. Meteorology	23
B. PERSONAL HEALTH SERVICES	
SURVEY OF LOCAL HEALTH SERVICES	
1. Administration	1
2. Co-ordination and Co-operation with other parts of National Health Service	2-4
3. Joint use of Staff	5
4. Voluntary Organisations	5
5. Care of Expectant and Nursing Mothers and Children under school age	6-8
6. Domiciliary Midwifery	9
7. Health Visiting	10-12
8. Home Nursing	14-16
9. Vaccination and Immunisation	17-18
10. Ambulance Service	19-20
11. Prevention, Care and After-Care	20-26
(a) Tuberculosis	
(b) Summary of Care and After-Care Services	
(c) Venereal Disease	
12. Domestic Help	26-27
13. Health Education	27-29
14. Mental Health	29-34
STATISTICS	35-50
C. ENVIRONMENTAL HEALTH SERVICES	
1. Sanitary Circumstances	1-43
2. Administration of the Shops, etc.	44-48
3. Public Analyst's Report	49-84
D. PORT HEALTH SERVICE	1-30
E. SPECIAL REPORTS	
1. The Preventive Medicine Laboratories (H. R. Cayton)	2-7
2. B.C.G. Vaccination (A. T. M. Roberts)	7-9
3. Administration (P. J. Room)	9-10
4. Cancer Education (D. M. Evans)	11-17
5. Blindness Prevention (J. Wallis)	18-19
6. Constitution of the Health Committee, 1952	19
7. Public Health Staff	19
F. SCHOOL HEALTH SERVICE	1-72

GENERAL REVIEW OF THE HEALTH OF BRISTOL 1952

	Section A	Page
<i>Medical Officer of Health's Introduction</i>		I
1. The Health of the City and County in 1952		I
2. Vital Statistics		7
3. Infectious Diseases		16
4. Meteorological Statistics 1952 (Mr. A. G. Harding)		23

I. THE HEALTH OF BRISTOL IN 1952

My Lord Mayor, Ladies and Gentlemen,

I have pleasure in presenting my 23rd Annual Report on the health conditions of the City of Bristol.

The second part of the report includes a survey of local health services provided under the National Health Service Act. It is very clear that the work carried out in the Health Department under the National Health Service Act is but a small part of the responsibilities undertaken by the Health Committee—a fact which is not generally appreciated.

Statistical Section

I would like to refer to the statistical section of the report, examination of which will show that the figures compare favourably with those of any great industrial city, not only in this country but in any other country in the world. These figures have improved steadily over the years and this trend in general has been maintained during 1952.

Sanitary Circumstances

The report on the sanitary circumstances of the city is a report upon the services under the supervision of the Chief Sanitary Inspector: it involves a considerable amount of day-to-day work and is of great importance to the citizens. Thus, to mention a few of the services, it includes the repair and demolition of houses, the abatement of nuisances, the inspection of meat, milk, ice-cream and other foods; the administration of the Food and Drugs Acts, of the Rag Flock Acts and of the Pharmacy and Poisons Act; kitchens and where foodstuffs are being prepared; and the Fertilizers and Feeding Stuffs Act. The administration of these Acts of Parliament involves close and thorough inspection of premises, including the taking of samples, and the registration and licensing of premises and persons. It is, perhaps, not realised by the people of Bristol how much is done by the Health Department to protect them against the dangers which befall them if their food and environment become polluted. In addition, considerable attention is paid to maintaining a clean atmosphere and to reducing noise nuisances, as well as to the destruction of pests and to disinfection. The Veterinary Officer of the Committee also supervises the Diseases of Animals Act.

In carrying on these duties there is also a steady campaign—with the advice and co-operation of Mr. D. M. Evans—for continuous health education and for bringing to the notice of the public the part they should play in making Bristol a healthy city.

Shops Acts Inspector

The Shops Act Inspector presents an interesting report and this is another field where the department has much day-to-day routine work to carry out. I commend to the notice of the reader a table included in the Chief Shops Inspector's report, comparing the powers for improving and maintaining working conditions in the distributive trades in this and other countries in Europe.

Public Analyst

As usual, Mr. Whittle, the public analyst, presents a valuable report. Samples are collected by the Food and Drugs Officers of the Health Department and the report shows that an up-to-day well-equipped laboratory in the Preventive Medicine Department, under the able direction of Mr. Whittle, supervises the scientific examination of foodstuffs, and where necessary the officers of the department bring transgressors before the magistrates.

Port Health

The silent service, of which little is known in the city, is that of the Port Health Section, under the supervision of the Senior Medical Officer, Dr. D. T. Richards, and his able lieutenant, Mr. E. I. Davies, the Chief Assistant Port Inspector. There was no outstanding incident in the port during the year, but the health of ships' crews, sanitary conditions of ships and docks, and the question of rat infestation were all dealt with in the usual efficient routine way. It is a pleasure to know that the question of the complete extermination of rats appears very near solution.

School Health Service

I wish to refer to a comprehensive report by Dr. A. L. Smallwood upon the school health service of the city. It is not my intention here to draw attention to any particular matter in this report, but I do wish to emphasise once again that this service is irreplaceable by any other system at the present time and is giving invaluable service to the children of the city by helping to safeguard their health.

Opening of new Health Centres

In his special report, Mr. P. J. Room refers to the opening of the William Budd Health Centre by the Minister of Health in September, 1952. A full report on its working will be published in a future annual report when further experience has been gained.

A new clinic was also opened at Lawrence Weston, to which Mr. Room also refers in his report.

Special Reports

Special reports include the following :—

	Section E
1. The Preventive Medicine Laboratories (H. R. Cayton)	2-7
2. B.C.G. Vaccination (A. T. M. Roberts)	7-9
3. Administration (P. J. Room)	9-10
4. Cancer Education (D. M. Evans)	11-18
5. Blindness Prevention (Miss J. M. Wallis)	18-19

Acknowledgments

During the year Dr. J. Hutton left the service to become Medical Officer of Health of Poole. He had served the city loyally since he was appointed in 1938: apart from a period of three years when he was away on military service. All his former colleagues wish him every success in his new appointment.

Mr. R. G. Emblem, Records Officer, left the Department during the year to fill a commercial post, after three years' valuable service.

We welcome Dr. H. R. Cayton who has been given the responsibility, under Professor Cooper, of the Public Health Laboratory Service, and

already he has shown himself to be a happy colleague willing at all times to help the department.

Once again I wish to express gratitude to the staff for their loyal co-operation, to my deputy, Dr. Wofinden, to my senior medical officers and to Mr. Room, chief administrative assistant, for their loyal and invaluable assistance. I and all the staff of the department wish to tender our best thanks to the Chairman of the Health, Education, Housing, Welfare and other committees of the Corporation for their encouragement and consideration. Our best thanks are also due to the Town Clerk and the Chief Officers for their ever ready help and co-operation.

This report was collated and edited by Mr. D. M. Evans, my personal assistant, to whom my best thanks are due.

Your obedient servant,

R. H. PARRY,

Central Health Clinic,
Bristol 2.

Medical Officer of Health.

2. SUMMARY OF VITAL STATISTICS

Population

In the 1951 annual report, rates were based upon the Registrar-General's estimate of the TOTAL population at mid-1951 as 442,700. This figure gave the position *after* the boundary adjustments under "The Somerset and Bristol (Alteration of Boundaries) Order 1951," which became effective on 1st April 1951. (This order, amongst other things, incorporated new areas such as Bishopsworth and Whitchurch inside the city boundary and excluded Ham Green.) Later, but too late for inclusion in the 1951 report, the Registrar-General issued a constructed population figure of 441,650 for use in the computation of rates for the year which combined "before boundary change" and "after boundary change" figures.

This adjustment makes slight alteration to the rates for 1951 and, in order that this adjustment may be recorded, the figures as published in the 1951 report, are published together with those based on the constructed figure of the Registrar-General. The rates for 1952 are based upon the Registrar-General's estimate of the Total population at mid-1952 as 443,900.

As in 1950 and 1951, "TOTAL" population indicates the inclusion of H.M. Forces stationed in the area.

	1951 (as published)	1951 (constructed)	1952
Estimated total population (mid-year)	442,700	441,650	443,900
Marriages	3,506		3,585
Rate per 1,000 population	15.84	15.88	16.15
Births (Area comparability factor (1952—0.99)	6,872		6,760
Rate per 1,000 population	15.52	15.56	15.23
Rate per 1,000 population—adjusted	15.37	15.40	15.08
Stillbirths	155		144
Rate per 1,000 total births	22.06		20.86
Deaths (Area comparability factor (1952—0.97)	5,623		4,971
Rate per 1,000 population—crude	12.70	12.73	11.20
Rate per 1,000 population—adjusted	12.32	12.35	10.86
Natural increase (per 1,000 pop.)	2.82	2.83	4.03
Deaths under one year			145
Rate per 1,000 live births			21.45
Deaths under one month			102
Rate per 1,000 live births			15.09
Deaths from puerperal causes			7
Rate per 1,000 total births			1.01

Marriages (Rate : 16.15 per 1,000 Total population)per 1,000
total population

1952	3,585	16.15
1951	3,506 .. (15.84)	15.88 (Con-
1950	3,512 ..	15.87 structured)
1949	3,783 ..	17.20
1948	3,786 ..	17.41
1947	4,033 ..	18.82

Births (Rate : 15.23 per 1,000 population)

Births	Y E A R						
	1946	1947	1948	1949	1950	1951	1952
Total registered live births ..	8,929	10,082	8,485	8,326	7,833	7,536	7,635
1952 compared with other years (plus or minus)	-1,294	-2,447	-350	-691	-198	+99	—
Non-resident births in Bristol (in- cluded above)	1,105	1,026	889	1,005	956	897	988
Births—Bristol citizens only ..	7,824	9,056	7,596	7,321	6,877	6,639	6,647
Births to Bristol citizens outside City boundary	217	87	235	185	219	233	113
R.G.'s corrected figure—regis- tered live births—Bristol ..	8,041	9,143	7,831	7,506	7,096	6,872	6,760
Birth rate per 1,000 population : (1946-48 Civ. Pop.)	19.28	21.33	18.00	—	—	—	—
(1949-52—Total pop.) ..	—	—	—	17.07	16.03	15.56	15.23

Illegitimacy (Rate : 45 per 1,000 live births)

	1951	1952
Total illegitimate live births registered in Bristol	339	378
As percentage of total live births	4.5 %	4.9 %
Non-citizen illegitimate births in Bristol ..	83	107
Non-citizen percentage of illegitimate births ..	24.5 %	28.3 %
R.G.'s corrected total for Bristol—illegitimate live births	282	302

Stillbirths (R.G.'s corrected number, 144. Rate : 20.86 per 1,000 total births).

The stillbirth rate for 1952 at 20.86 per 1,000 total births, shows a further decline. The figures for 1951 and 1950 were 22.06 and 21.78 per 1,000 total births respectively.

There were 144 stillbirths registered in 1952, as compared with 155 in 1951 after correction for transfers. The gross total was 191, but this included 51 outside-city cases, and there were only four inward transfers of city residents.

Deaths (Rate : (Crude) 11.20 per 1,000 population.
(Adjusted) 10.86 per 1,000 population.
(Area comparability factor 0.97).

	1951	1952	Increase or decrease on 1951	Rate per 1,000 pop., 1952
Total number of deaths in city ..	6,180	5,489	- 691	12.37
Non-citizen deaths included ..	821	737	- 84	
Total deaths—Bristol cit. only (as corrected by R.G.)	5,623	4,971	- 652	11.20 (crude) 10.86 (adjusted)

Natural Increase (Rate : 4.03 per 1,000 population).

The natural increase in the population of Bristol, that is the excess of births over deaths during the year, was 1,789 compared with a natural increase of 1,249 in 1951 (2.82 per 1,000 population).

Infant Mortality (Total 145). (Rate : 21 per 1,000 live births).

During 1952, 226 infants (including 84 non-Bristol) died within one year of birth—one less than in the previous year (227 including 90 non-Bristol). After correction for transfers, the Registrar-General's figure is 145 compared with 140 and an infant mortality rate of 20 per 1,000 live births in 1951. This latter figure is the lowest ever recorded for Bristol and is one of the lowest in the country.

	1952	1951	1950	1949	1948	1947
Legitimate infant mortality rate per 1,000 legitimate live births	21	20	23	25	24	29
Illegitimate infant mortality rate per 1,000 illegitimate live births	33	25	29	34	33	25

Neo-Natal Deaths (102). (Rate : 15.09 per 1,000 live births).

Local figures for this age group show that the registered number of babies dying in Bristol during the first month of life was 173 compared with 164 in 1951. After correction by the Registrar-General for residence this figure becomes 102 for Bristol compared with 92 in 1951. This age group, after correction, represents 70% of the number of infants under one year of age (66% in 1951).

Of the total neo-natal deaths in 1952 (uncorrected for transfers), 68 (39% approximately) occurred on the first day of life and 73 (42% approximately) from one day to within the first week of life. In 1951 these figures were respectively—25% and 55%. In 1952, after correction for transfers, there were 45 neo-natal deaths on the first day and 42 in the one day to one week age group.

In 1952, of the corrected 102 neo-natal deaths 7 were illegitimate.

Legitimate neo-natal mortality—14.7 per 1,000 legitimate live births.

Illegitimate neo-natal mortality—23.2 per 1,000 illegitimate live births.

Maternal Mortality (7). (Rate : 1.01 per 1,000 total births).

There were twelve maternal deaths registered in the city during 1952. Of these, seven were Bristol residents (as listed below).

1952.—Causes:

Eclampsia	..	..	..	..	3	} 7
Abortion—self-induced—						
{ (a) due to sepsis	..	..	..	..	1	
{ (b) due to air embolism	..	..	..	..	1	
Ectopic pregnancy	..	..	..	..	1	
Post-partum haemorrhage	..	..	..	..	1	

TABLE 2. Supplied by the Registrar-General

Birth-rates, death-rates, analysis of mortality, maternal mortality
and case-rates for certain infectious diseases in the year 1952

(Provisional figures based on quarterly returns)

	Bristol	England and Wales	160 County Boroughs and great towns including London	160 Smaller towns (resident populations 25,000 to 50,000 at 1951 Census)	London Admini- strative County
Rates per 1,000 Home population.					
Births:					
Live	15.23	15.3	16.9	15.5	17.6
Still	0.32	0.35	0.43	0.36	0.34
	20.86 (a)	22.6 (a)	24.6 (a)	23.0 (a)	19.2 (a)
Deaths:					
All causes (crude)	11.20	11.3	12.1	11.2	12.6
(Adjusted)	10.86				
Typhoid & paratyphoid fevers	—	0.00	0.00	0.00	—
Whooping cough	0.00	0.00	0.00	0.00	0.00
Diphtheria	—	0.00	0.00	0.00	0.00
Tuberculosis	0.23	0.24	0.28	0.22	0.31
Influenza	0.05	0.04	0.04	0.04	0.05
Smallpox	—	0.00	—	—	—
Acute poliomyelitis (including polioencephalitis)	0.00	0.01	0.01	0.00	0.01
Pneumonia	0.53	0.47	0.52	0.43	0.58
Notifications (corrected):					
Typhoid fever	0.00	0.00	0.00	0.00	0.00
Paratyphoid fever	0.02	0.02	0.02	0.03	0.01
Meningococcal infection	0.03	0.03	0.03	0.03	0.02
Scarlet fever	1.95	1.53	1.75	1.58	1.56
Whooping cough	4.12	2.61	2.74	2.57	1.66
Diphtheria	—	0.01	0.01	0.03	0.01
Erysipelas	0.21	0.14	0.15	0.12	0.14
Smallpox	—	0.00	0.00	0.00	—
Measles	4.73	8.86	10.11	8.49	9.23
Pneumonia	0.96	0.72	0.80	0.62	0.57
Acute poliomyelitis (including polioencephalitis)—					
Paralytic	0.05	0.06	0.06	0.06	0.06
Non-paralytic	0.01	0.03	0.03	0.02	0.03
Food poisoning	0.17	0.13	0.16	0.11	0.18
Puerperal pyrexia	36.79 (a)	17.87 (a)	23.94 (a)	10.22 (a)	30.77 (a)
Rates per 1,000 live births.					
Deaths under one year of age	21.45	27.6 (b)	31.2	25.8	23.8
Deaths from diarrhoea and enteritis—under 2 yrs. of age	0.30	1.1	1.3	0.5	0.7
Maternal Mortality:	Rate per 1,000 total births (i.e., live and still).				
	Deaths No. Rate Bristol	Deaths No. Rate Eng. & Wales	Rate per million women aged 15 to 44 (England and Wales)		
Sepsis of pregnancy, childbirth and the puerperium	— —	61 0.09	... 1		
Abortion with toxæmia	— —	13 0.02			
Other tox. of pregnancy and the puerperium	4 0.58	147 0.21	... 3		
Haemorrhage of pregnancy and childbirth	— —	59 0.09			
Abortion without mention of sepsis or toxæmia	1 0.145	31 0.04	... 5		
Abortion with sepsis	1 0.145	47 0.07			
Other complications of preg- nancy, childbirth and the puerperium	1 0.145	138 0.20			

(a) per 1,000 total births (live and still).

(b) per 1,000 related live births.

TABLE 3. Compiled from figures supplied by the Registrar-General
Total deaths by cause and age during the calendar year 1952—
BRISTOL

CAUSE OF DEATH					Sex	All Ages	0-1	1-5	5-15	15-45	45-65	65 plus
All Causes					M	2,504	84	11	14	155	698	1,542
					F	2,467	61	12	12	90	463	1,829
1.	T.B. Respiratory	...	...	...	M	62	1	—	—	20	31	10
					F	29	—	—	—	13	10	6
2.	T.B. Other	...	...	...	M	5	—	—	1	2	1	1
					F	6	—	1	—	2	1	2
3.	Syphilitic Disease	...	...	...	M	9	—	—	—	—	3	6
					F	—	—	—	—	—	—	—
4.	Diphtheria	...	...	...	M	—	—	—	—	—	—	—
					F	—	—	—	—	—	—	—
5.	Whooping Cough	...	...	...	M	1	1	—	—	—	—	—
					F	—	—	—	—	—	—	—
6.	Meningococcal Infection	...	...	...	M	1	1	—	—	—	—	—
					F	—	—	—	—	—	—	—
7.	Acute Poliomyelitis	...	...	...	M	—	—	—	—	—	—	—
					F	1	—	—	—	1	—	—
8.	Measles	...	...	...	M	—	—	—	—	—	—	—
					F	—	—	—	—	—	—	—
9.	Other Infective and Parasitic Disease				M	7	—	1	—	2	2	2
					F	3	—	—	—	—	—	2
10.	Malignant Neoplasm of Stomach	...			M	82	—	—	—	1	34	45
					F	61	—	—	—	1	18	42
11.	" " Lung, Bronchus				M	125	—	—	—	9	70	46
					F	26	—	—	—	1	14	11
12.	" " Breast	...			M	2	—	—	—	—	—	2
					F	83	—	—	—	3	40	40
13.	" " Uterus	...			F	43	—	—	—	4	19	20
14.	Other Malignant and Lymphatic Neoplasms	...	...	...	M	236	—	1	—	13	61	161
					F	180	—	—	1	13	56	110
15.	Leukaemia, Aleukaemia	...	...		M	6	—	—	—	1	4	1
					F	9	—	—	—	2	2	5
16.	Diabetes	...	...	...	M	4	—	—	—	—	2	2
					F	23	—	—	1	1	6	15
17.	Vascular Lesions of Nervous System				M	276	—	—	—	15	56	205
					F	413	—	—	—	2	75	336
18.	Coronary Disease, Angina	...	...		M	355	—	—	—	15	137	203
					F	233	—	—	—	2	38	193
19.	Hypertension with Heart Disease	...			M	106	—	—	—	4	31	71
					F	127	—	—	—	1	23	103
20.	Other Heart Disease	...	...	...	M	384	—	—	—	10	46	328
					F	515	—	—	1	6	47	461
21.	Other Circulatory Disease	...	...		M	113	—	—	—	1	19	93
					F	136	—	—	—	3	9	124
22.	Influenza	...	...	...	M	12	—	—	—	—	7	5
					F	10	—	—	—	1	3	6
23.	Pneumonia (including pneumonia of Newborn)	...	...	...	M	111	18	1	—	2	26	64
					F	124	16	2	1	2	18	85
24.	Bronchitis	...	...	...	M	146	2	1	1	1	40	101
					F	85	1	—	—	1	7	76
25.	Other Diseases of Respiratory System				M	47	—	1	—	1	24	21
					F	16	—	—	—	4	1	11
26.	Ulcer of Stomach and Duodenum	...			M	38	—	—	—	4	18	16
					F	21	—	—	—	2	2	17
27.	Gastritis, Enteritis and Diarrhoea	...			M	14	1	—	—	2	4	7
					F	9	1	1	—	—	4	3
28.	Nephritis and Nephrosis	...	...		M	24	—	—	—	6	4	14
					F	19	—	—	1	—	5	13
29.	Hyperplasia of Prostate	...	...		M	42	—	—	—	—	1	41
30.	Pregnancy, Childbirth, Abortion	...			F	7	—	—	—	7	—	—
31.	Congenital Malformations	...	...		M	20	15	1	—	3	1	—
					F	25	16	3	2	—	3	1
32.	Other Defined and ill-defined Diseases				M	169	43	1	1	13	45	66
					F	175	27	3	3	6	38	98
33.	Motor Vehicle Accidents	...	...		M	25	—	1	5	8	5	6
					F	15	—	—	1	3	3	8
34.	All other Accidents	...	...	...	M	54	2	3	6	14	14	15
					F	44	—	2	1	4	6	31
35.	Suicide	...	...	...	M	27	—	—	—	6	11	10
					F	29	—	—	—	4	15	10
36.	Homicide and Operations of War	...			M	1	—	—	—	—	1	—
					F	—	—	—	—	—	—	—

Table showing Population, Birth-Rates, Death-Rates, Zymotic Death-Rates, Infant and Maternal Mortality Rates of the 20 large towns of England and Wales for 1952.

	Birmingham	Bradford	Bristol	Cardiff	Coventry	Croydon	Kingston upon Hull	Leeds	Leicester	Liverpool	Manchester	Newcastle upon Tyne	Nottingham	Plymouth	Portsmouth	Salford	Sheffield	Southampton	Stoke-on-Trent	Sunderland
R.G.'s estimated population	1,119,000	288,000	443,900	244,800	261,000	250,500	299,400	304,800	285,900	791,500	705,400	289,800	310,700	218,600	242,600	176,400	510,900	175,500	272,300	180,400
Comparability factor—																				
(a) births	0.96	1.01	0.99	0.97	0.94	0.96	1.00	0.96	0.98	0.96	0.95	0.97	0.97	1.05	1.05	0.95	0.99	0.99	0.96	1.01
(b) deaths	1.12	0.97	0.97	1.06	1.26	0.93	1.14	1.07	1.01	1.19	1.11	1.09	1.08	1.06	1.04	1.14	1.07	1.02	1.21	1.13
Crude birth rate per 1,000 population	16.4	15.9	15.23	17.77	15.9	13.8	18.57	15.3	15.9	20.0	17.53	16.54	16.71	15.95	15.43	17.57	13.71	16.97	16.36	20.0
Birth rate as adjusted by factor	15.7	16.0	15.08	17.24	14.9	13.2	18.57	14.7	15.6	19.2	16.65	16.04	16.21	16.75	16.20	16.69	13.57	16.80	15.52	20.2
Crude death rate per 1,000 population	10.24	13.7	11.20	11.13	8.9	11.9	11.09	12.5	11.4	11.4	12.16	11.81	10.74	11.18	10.77	12.15	11.62	11.46	11.38	11.4
Death rate as adjusted by factor	11.47	13.2	10.86	11.79	11.2	11.1	12.64	13.4	11.5	13.6	13.50	12.87	11.60	11.85	11.20	13.851	12.43	11.69	13.76	12.8
Infantile mortality rate per 1,000 live births ..	26.8	33	21.45	28.49	31.7	20	39.75	30	24.2	35.5	34.28	29.21	28.13	29.53	23.24	34.8	23.98	28.88	28	36.0
Neonatal mortality rate per 1,000 live births ..	17.6	20	15.09	18.16	20.4	13.8	21.58	18.6	13.6	22.5	21.75	18.37	17.91	20.94	15.22	19.35	15.42	20.82	19	22.4
Stillbirth rate per 1,000 total births	19.6	30	20.86	25.09	19.0	22.5	24.05	23	19.0	24.6	27.45	26.40	22.59	22.70	23.98	19.3	20.01	33.12	28	19.3
Maternal mortality rate per 1,000 total births ..	0.80	0.84	1.01	0.02	0.24	0.56	0.53	0.76	0.86	0.43	0.71	1.016	0.38	0.84	0.78	0.63	0.70	0.65	0.436	0.54
Tuberculosis rates per 1,000 total population—																				
(a) Primary notifications—																				
Respiratory	1.11	0.86	1.311	1.275	1.8	0.89	1.00	0.94	1.34	1.98	1.02	1.484	1.38	1.05	1.29	1.07	1.159	1.21	1.153	1.48
Non-Respiratory ..	0.13	0.15	0.135	0.1716	0.18	0.08	0.14	0.19	0.12	0.17	0.13	0.221	0.09	0.19	0.12	0.15	0.125	0.063	0.088	0.19
(b) Deaths—																				
Respiratory	0.25	0.23	0.205	0.33	0.20	0.224	0.30	0.22	0.32	0.34	0.38	0.328	0.32	0.22	0.21	0.35	0.225	0.387	0.348	0.34
Non-Respiratory ..	0.02	0.03	0.025	0.02	0.06	0.016	0.02	0.02	0.024	0.04	0.03	0.041	0.03	0.02	0.045	0.006	0.020	0.034	0.026	0.03
DEATH RATES PER 1,000 POPULATION FROM :—																				
*Cancer (all forms) ..	1.90	2.81	1.922	2.03	1.54	2.263	2.04	1.08	2.08	2.01	2.18	2.118	1.98	1.73	1.95	2.262	2.067	2.165	2.071	2.03
Typhoid and Paratyphoid Fever	0.00	0.00	0.00	0.008	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Meningococcal Infections	0.01	0.003	0.002	0.008	0.00	0.008	0.01	0.002	0.0035	0.02	0.003	0.007	0.01	0.009	0.01	0.011	0.004	0.006	0.0074	0.02
Scarlet Fever	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.002	0.00	0.00	0.00
Whooping Cough	0.01	0.00	0.002	0.004	0.004	0.00	0.00	0.00	0.007	0.01	0.01	0.003	0.01	0.01	0.00	0.00	0.002	0.006	0.0	0.00
Diphtheria	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.001	0.000	0.00	0.004	0.00	0.00	0.00	0.00	0.0	0.00
Influenza	0.03	0.04	0.050	0.04	0.034	0.036	0.03	0.05	0.024	0.07	0.03	0.028	0.03	0.03	0.01	0.023	0.041	0.017	0.044	0.05
Measles	0.00	0.003	0.00	0.004	0.008	0.00	0.01	0.01	0.007	0.01	0.01	0.003	0.00	0.00	0.00	0.00	0.002	0.011	0.0073	0.017
Acute Poliomyelitis and Encephalitis	0.01	0.003	0.002	0.008	0.00	0.008	0.00	0.01	0.00	0.00	0.001	0.000	0.00	0.009	0.00	0.00	0.006	0.006	0.0	0.005
Acute Infectious Encephalitis	0.01	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.003	0.007	0.01	0.00	0.00	0.006	0.002	0.006	0.0037	0.00
Smallpox	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00
Diarrhoea (under 2 years)	0.02	0.02	0.0045	0.029	0.31	0.008	0.06	0.01	0.017	0.03	0.03	0.028	0.03	0.045	0.04	0.04	0.022	0.017	0.0147	0.022
Diarrhoea (under 2 years) (per 1,000 live births) ..	1.26	1.52	0.30	1.61	1.92	0.577	0.34	0.90	1.098	1.70	1.78	1.669	1.54	2.87	2.40	2.26	1.570	1.01	0.898	1.1

* Including Leukaemia and Aleukaemia.

TABLE 4. Compiled from figures supplied by Registrar-General
PRINCIPAL CAUSES OF DEATH DURING CALENDAR YEAR
1952—BRISTOL

Death Rate per 1,000 total Population	Disease	Net Deaths in 1952	Per cent of total deaths
.205	1. T.B. Respiratory	91	1.83
.025	2. T.B., other	11	.22
.020	3. Syphilitic disease	9	.18
—	4. Diphtheria	—	—
.002	5. Whooping Cough	1	.02
.002	6. Meningococcal infection	1	.02
.002	7. Acute Poliomyelitis	1	.02
—	8. Measles	—	—
.023	9. Other infective and parasitic disease ..	10	.20
.322	10. Malignant Neoplasm of stomach ..	143	2.88
.340	11. " " lung, bronchus ..	151	3.04
.192	12. " " breast ..	85	1.71
.097	13. " " uterus ..	43	.86
.937	14. Other malig't and lymphatic neoplasms	416	8.37
.034	15. Leukaemia, Aleukaemia	15	.30
.061	16. Diabetes	27	.54
1.552	17. Vascular lesions of nervous system ..	689	13.86
1.325	18. Coronary disease, angina	588	11.83
.525	19. Hypertension with heart disease ..	233	4.69
2.025	20. Other heart disease	899	18.09
.561	21. Other circulatory disease	249	5.01
.050	22. Influenza	22	.44
.529	23. Pneumonia (inc. P. of newborn) ..	235	4.73
.520	24. Bronchitis	231	4.65
.142	25. Other diseases of respiratory system ..	63	1.27
.133	26. Ulcer of Stomach and duodenum ..	59	1.19
.052	27. Gastritis, enteritis and diarrhoea ..	23	.46
.097	28. Nephritis and nephrosis	43	.86
.095	29. Hyperplasia of prostate	42	.85
.016	30. Pregnancy, childbirth, abortion ..	7	.14
.101	31. Congenital malformations	45	.90
.775	32. Other defined and ill-defined diseases ..	344	6.92
.090	33. Motor vehicle accidents	40	.80
.221	34. All other accidents	98	1.97
.126	35. Suicide	56	1.13
.002	36. Homicide and operations of war ..	1	.02
11.20	All causes	4,971	

TABLE 6. Notifiable cases during 1952 (Port Cases—Nil). Local figures

Notifiable Diseases	Notifications							Removed to Hospital		Notified in each quarter				Attack rate per 1,000 Population	Deaths (corrected for transfers) not necessarily relevant to notifications of 1952																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	At all ages	At ages—years:						No.	%	1st	2nd	3rd	4th		At ages—years:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65								65 and upwards	All ages	Under 1	1 to 5	5 to 15	15 to 45	45 to 65	65 and upwards																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
Diphtheria ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* 14 cases occurred at home ; none of these was subsequently removed to hospital. No deaths were directly attributed to Puerperal Pyrexia.

TABLE 7. TUBERCULOSIS (including Port cases). Local figures

C A S E S														DEATHS (corrected for transfers)															
	At all ages	Un-der 1	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65 plus	Quarters				Case rate per 1,000 Pop.	At all ages	Un-der 1	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65 plus	Death rate	
												1st	2nd	3rd	4th														
Pulmonary tuberculosis:																													
Cases notified ...	480	—	16	14	23	65	70	110	68	47	44	129	124	116	111	1.311	93	1	—	—	1	8	9	16	22	19	17	0.210	
Other cases* ...	102	1	1	3	1	8	12	34	17	10	4	28	20	28	26														
Non-pulmonary tuberculosis:	54	—	8	8	3	4	5	8	10	5	2	7	11	15	21	0.135	12	—	2	1	—	1	2	—	1	1	1	3	0.027
Other cases* ...	6	—	1	1	—	1	—	—	1	—	—	3	1	1	1														
Total ... 1952 ...	642	1	26	26	27	78	87	152	96	62	50	167	156	160	159	1.446	105	1	2	1	—	2	10	9	17	23	20	20	0.237
Total ... 1951 ...	668	4	27	29	31	76	112	136	83	87	53	146	204	169	149	1.509	165	1	3	1	2	6	8	23	34	33	35	19	0.372
1950 ...	558	4	30	30	23	76	75	119	77	54	49	152	165	119	122	1.260	200	1	6	2	—	5	18	30	35	44	37	22	0.452
1949 ...	635	4	20	31	24	83	95	132	93	68	52	186	158	157	134	1.444	217	1	6	7	1	10	20	38	39	37	38	20	0.49
1948 ...	635	3	33	45	27	86	100	110	84	73	47	141	178	167	149	1.46	238	3	9	3	1	12	18	40	49	43	33	27	0.55
1947 ...	618	7	30	27	27	92	111	123	76	65	40	160	167	137	154	1.44	276	4	10	7	3	17	29	48	48	41	54	15	0.64
1946 ...	692	4	28	40	29	104	105	140	92	71	52	163	204	161	164	1.66	265	4	10	4	7	19	21	51	41	41	40	27	0.64
1945 ...	632	4	29	41	28	85	96	136	75	55	58	173	168	138	153	1.53	297	4	11	3	10	15	32	53	55	41	54	19	0.72
1944 ...	648	3	19	27	35	97	103	119	108	71	42	165	177	167	139	1.60	256	3	8	4	1	15	32	53	49	34	37	20	0.63
1943 ...	717	10	16	29	31	90	122	161	96	87	53	202	169	160	186	1.98	305	10	14	7	3	22	29	66	49	48	42	15	0.82
1942 ...	587	4	12	10	30	29	59	113	103	94	78	153	152	128	154	1.62	264	6	11	3	6	2	21	30	42	53	47	43	0.70
1941 ...	588	7	33	30	21	89	80	113	91	71	37	144	167	121	156	1.63	310	5	11	7	4	29	32	65	60	43	35	19	0.86
1940 ...	564	5	40	44	20	81	65	113	85	57	35	157	179	120	108	1.37	273	2	16	4	3	24	36	44	47	52	36	9	0.66

* Cases coming to the knowledge of the M.O.H. otherwise than by notification.

TABLE 8. Deaths (corrected for transfers) registered within the period

Code No.		1950		1951		1952	
		(7/1/50-30/12/50)		(6/1/51-24/12/51)		(5/1/52-3/1/53)	
		TOTAL	Including	TOTAL	Including	TOTAL	Including
001-008	T.B. of respiratory system	182		148		93	
010-119	T.B. other	18		17		12	
020-029	Syphilis and its sequelae	21		17		8	
030-039	Gonococcal infection and other V.D.	—		—		—	
040-049	Infectious disease in intestinal tract	1		1		—	
050-064	Other bacterial diseases	4		4		3	
070-074	Spirochaetal diseases (except syphilis)	1		—		—	
080-096	Diseases attributable to viruses	38		23		5	
100-108	Typhus and other rickettsial diseases	—		—		—	
110-117	Malaria	—		—		—	
120-138	Other infective and parasitic diseases	—		—		—	
140-148	Malignant neoplasm of buccal cavity and pharynx	25		23		12	
150-159	„ „ digestive organs and peritoneum	403		378		375	
151	„ „ stomach		149		155		146
153	„ „ large intestine (except rectum)		86		73		79
154	„ „ rectum		64		51		58
160-165	„ „ respiratory system	155		178		164	
170-181	„ „ breast & genito-urinary system	206		233		216	
170	„ „ breast		71		97		82
171/4	„ „ uterus		41		30		43
175	„ „ ovary, fallopian tube and broad						
	ligament		25		24		16
177	„ „ prostate		30		29		37
180/1	„ „ kidney, bladder and other urin-						
	ary organs		34		43		26
190-199	„ „ other and unspecified sites ...	50		51		50	
200-205	Neoplasms of lymphatic and haematopoietic tissues	32		39		39	
210-229	Benign neoplasm	9		4		10	
230-239	Neoplasm of unspecified nature	10		14		11	
240-245	Allergic disorders	22		31		27	
250-254	Diseases of thyroid gland	9		12		6	
260	Diabetes mellitus	46		41		25	
270-277	Diseases of other endocrine glands	3		8		1	
280-289	Avitaminoses, and other metabolic diseases ...	—		1		4	
290-299	Diseases of blood-forming organs	23		17		25	
300-309	Ptychoses	5		3		2	
310-318	Psychoneurotic disorders	—		1		2	
320-326	Disorders of character, behaviour and intelligence	1		—		—	
330-334	Vascular lesions affecting central nervous system	653		632		671	
331	Cerebral haemorrhage		338		307		325
332	Cerebral embolism and thrombosis		264		266		305
340-345	Inflammatory diseases of central nervous system	18		21		10	
350-357	Other diseases of central nervous system ...	30		86		54	
360-369	Diseases of nerves and peripheral ganglia ...	—		—		1	
370-379	Inflammatory diseases of eye	1		—		—	
380-389	Other diseases and conditions of eye	—		1		—	
390-398	Diseases of ear and mastoid process	6		5		2	
400-402	Rheumatic fever	4		6		3	
410-416	Chronic rheumatic heart disease	93		120		95	
420-422	Arteriosclerotic and degenerative heart disease ...	1,314		1,343		1,326	
420	Arteriosclerotic heart disease, including coronary						
	disease		496		538		598
422	Other myocardial degeneration		784		770		695
430-434	Other diseases of the heart	55		57		78	
440-447	Hypertensive disease	286		293		295	
440/3	Hypertensive heart disease		231		246		254
450-456	Diseases of arteries	96		187		173	
460-468	Diseases of veins and other diseases of circulatory						
	system	15		16		13	

Code No.		1950		1951		1952	
		(7/1/50-30/12/50)		(6/1/51-29/12/51)		(5/15/2-3/1/53)	
		TOTAL	Including	TOTAL	Including	TOTAL	Including
470-475	Acute upper respiratory infections	3		1		2	
480-483	Influenza	47		187		20	
490-493	Pneumonia (4 weeks plus)	216		301		222	
500-502	Bronchitis	238		337		235	
510-527	Other diseases of respiratory system	55		80		64	
530-539	Diseases of buccal cavity and oesophagus ...	3		7		2	
540-545	Diseases of stomach and duodenum	53		49		63	
550-553	Appendicitis	10		9		7	
560-561	Hernia of abdominal cavity	14		17		15	
570-578	Other diseases of intestines and peritoneum ...	44		46		41	
580-587	Diseases of liver, gallbladder and pancreas ...	31		33		37	
590-594	Nephritis and nephrosis	58		51		41	
600-609	Other diseases of urinary system	35		27		34	
610-617	Diseases of male genital organs	46		60		45	
620-626	Diseases of breast, ovary, fallopian tube and parametrium	1		1		—	
630-637	Diseases of uterus and other female genital organs	3		5		5	
640-649	Complications of pregnancy	4		3		5	
650-652	Abortion	1		1		2	
660	Delivery without complication	—		—		—	
670-678	Delivery with specified complication	—		3		—	
680-689	Complications of the puerperium	2		—		—	
690-698	Infections of skin and subcutaneous tissue ...	3		2		—	
700-716	Other diseases of skin and subcutaneous tissue ...	1		2		5	
720-727	Arthritis and rheumatism, except rheumatic fever	14		13		10	
730-738	Osteomyelitis and other diseases of bone and joint	5		1		3	
740-749	Other diseases of musculoskeletal system ...	1		3		4	
750-759	Congenital malformations	56		48		56	
760-769	Birth injuries, asphyxia and infections of newborn	46		50		65	
770-776	Other diseases peculiar to early infancy	34		23		10	
780-789	Symptoms referable to systems or organs ...	3		1		3	
790-795	Senility and ill-defined diseases	37		28		24	
E800-802	Railway accidents	2		—		1	
E810-825	Motor vehicle traffic accidents	41		37		46	
E830-835	Motor vehicle non-traffic accidents	1		—		—	
E840-845	Other road vehicle accidents	5		4		3	
E850-858	Water transport accidents	1		2		2	
E860-866	Aircraft accidents	4		—		—	
E870-888	Accidental poisoning by solid and liquid substances	2		2		2	
E890-899	Accidental poisoning by gases and vapours ...	6		4		8	
E900-904	Accidental falls	51		73		55	
E910-936	Other accidents	19		32		36	
E940-946	Complications due to nontherapeutic medical and surgical procedures	—		—		—	
E950-959	Therapeutic misadventure and late complications of therapeutic procedures	—		—		—	
E960-965	Late effects of injury and poisoning	2		1		1	
E970-979	Suicide and self-inflicted injury	35		37		58	
E980-985	Homicide and injury purposely inflicted by other persons	5		1		—	
E990-999	Injury resulting from operations of war ...	—		—		—	
	TOTALS	5,073		5,593		5,043	

TABLE 9. INFANT MORTALITY (*corrected for transfers*)**Local figures**

Total 1951	CAUSE OF DEATH	Total 1952	1st Day	—to under one week	From one to four weeks	Total under one month	Total from 1 to 12 m'ths
—	T.B. respiratory	1				—	1
1	T.B. meningitis	—				—	—
—	Meningococcal meningitis ..	1				—	1
1	Non-meningococcal meningitis ..	1		1		1	—
1	Acute poliomyelitis	—				—	—
1	Whooping cough	1				—	1
25	Pneumonia (four weeks plus)	23				—	23
5	*Pneumonia of the newborn ..	12	2	6	4	12	—
1	Bronchitis	3				—	3
2	Influenza	—				—	—
4	Gastro-enteritis (four weeks plus)	2				—	2
25	*Congenital malformations ..	34	8	7	10	25	9
20	*Birth injury	22	10	12	—	22	—
24	*Atelectasis	31	21	10	—	31	—
11	*Haemolytic disease newborn ..	4	2	1	1	4	—
4	Haemorrhagic disease newborn	1	—	1	—	1	—
1	*Other diseases of early infancy	2	1	—	—	1	1
8	*Immaturity (unqualified) ..	3	—	2	1	3	—
5	Other causes	5	1	2	—	3	2
139	{ TOTALS	146	45	42	16	103	43
	{ Rate per 1,000 live births ..	21.60	6.66	6.21	2.37	15.24	6.36
	Year 1951 { TOTALS	139	24	49	19	92	47
	Rate per 1,000 live births ..	20.23	3.49	7.13	2.77	13.39	6.84

* Where there has been mention of immaturity—{ 53 Bristol cases during 1952
49 " " " " 1951

Deaths in :—	Hospital	116 (including 3—outside city area)
	Nursing Homes	—
	Private residences	30 (including 1—outside city area)
	Total	146

3. PREVALENCE AND CONTROL OF INFECTIOUS DISEASES

Diphtheria

It is pleasing to record that for six successive years there have been no deaths and that for the third successive year there is no confirmed case to record. The following figures show the proportion of the child population protected by immunisation.

Children under 5 years

1950	1951	1952
67.9%	49.8%	48.9%

Total number of under 5 population immunised = 17,563 out of 35,900.

School Children 5 to under 15 years

1951	1952
74.4%	75.5%

Total number of over 5 and under 15 (school) population immunised = 47,277 out of 62,600.

Total Child Population 0-under 15 years

	0-5 yrs.	over 5 - under 15	Total under 15 yrs.
Total Child population ..	35,900	62,600	98,500
Immunised children ..	17,563	47,277	64,840
% of immunised children ..	48.9%	75.5%	65.82% *

* 64.79% for 1951.

The decline in the number of young children protected by diphtheria immunisation is a matter for concern. There are clear indications that many parents, since diphtheria became a relatively rare disease, have become complacent about the necessity for diphtheria immunisation. In recent years, however, the incidence of poliomyelitis and the possibility of its being connected with immunisation has affected the public's response to appeals and the department's policy has been to immunise during the non-polio season. A more intensive propaganda campaign is to be waged during 1953. There is a strong possibility of a return of diphtheria outbreaks unless an adequate level of immunisation is maintained.

Dysentery

The number of cases notified during 1952 was 118, this being a considerable reduction on the previous year's figure of 611, which was the highest ever recorded in Bristol. Nearly all cases were of the Sonne type and there were no deaths.

Incidence 1945-1952

1945	1946	1947	1948	1949	1950	1951	1952
386	114	83	18	47	154	611	118

Erysipelas

The incidence decline of 1951 (84) similar to the fall-away in 1946 (82) has been maintained during 1952 (91 cases):—

1945	1946	1947	1948	1949	1950	1951	1952
151	82	144	144	135	133	84	91

Food Poisoning

Seventy-six cases were notified during 1952 and there were no deaths. There were twelve outbreaks involving more than one case, and in six of these the illness was traced to infection by salmonella typhimurium, though in no instance was it possible to incriminate definitely any particular food.

Incidence 1949-1952

	1949	1950	1951	1952
No. of cases ..	96	78	66	76
Attack rate per 1,000 population ..	2.218	0.176	0.149	0.171

Notifications	1951	1952
1st Quarter ..	4	21
2nd „ ..	18	22
3rd „ ..	21	21
4th „ ..	23	12
Total ..	66	76

Malaria

Incidence 1946-1952

1946	1947	1948	1949	1950	1951	1952
23	8	13	6	4	4	9

Measles (Attack rate 4.729 per 1,000 population)

Notifications	1952	1951	1950	1949	1948	1947	1946	1945
1st Quarter ..	197	4,265	48	2,960	72	1,783	16	2,912
2nd „ ..	715	2,311	126	447	361	1,813	49	722
3rd „ ..	812	208	441	263	1,355	204	44	67
4th „ ..	375	306	2,222	30	3,725	65	194	23
Totals ..	2,099	7,090	2,837	3,700	5,513	3,865	303	3,724
Deaths of Bristol residents	—	3	3	4	1	3	—	9

Two thousand and ninety-nine cases were notified during 1952. There were no deaths. A scheme was introduced during the year for the follow up by health visitors of notified cases of measles and whooping cough nursed at home occurring in the following :—

1. All young children (under two years).
2. Children under five years in families where from the personal knowledge of the health visitor advice on care and management is likely to be needed.

Paratyphoid Fever

Ten cases were notified during 1952, of which five occurred in children under one year of age. There were no deaths.

Incidence 1945-1952

1945	1946	1947	1948	1949	1950	1951	1952
0	3	3	1	2	2	9	10

Poliomyelitis

There were 26 confirmed cases during 1952 (31 in 1951 ; 266 in 1950). There was one death from this disease in 1952, which occurred at Ham Green Hospital.

Poliomyelitis in 1952

Confirmed Cases	Sex	Paralytic	Non-paralytic	Attack rate per 100,000 pop.			Deaths
				1952	1951	1950	
26	14 M. 12 F.	12 M. 8 F. } 20	2 M. 4 F. } 6	5.9	7.0	60.1	1

Poliomyelitis—Confirmed cases 1947/1952—by quarters

	1952	1951	1950	1949	1948	1947
1st Quarter	—	4	4	5	2	1
2nd „	3	5	3	2	2	2
3rd „	21	20	161	65	15	17
4th „	2	2	98	63	10	12
Totals	26	31	266	135	29	32

Poliomyelitis—Confirmed cases 1952—by age group and sex

	Under 5 yrs.	5 to 15 yrs.	15 to 25 yrs.	25 yrs. plus	Total
Male ..	7	3	2	2	14
Female ..	4	6	—	2	12
Total ..	11	9	2	4	26
Deaths ..	—	—	—	1	1

Respiratory Diseases

Deaths of Bristol residents

	1952	1951	1950	1949	1948
Influenza ..	22	184	47	61	9
Bronchitis ..	231	322	245	241	208
Pneumonia ..	235	321	215	211	194
Other	63	74	52	57	69

Notification of acute primary and influenzal pneumonia were in the following years :—

1952	..	..	427
1951	..	..	606
1950	..	..	530
1949	..	..	447
1948	..	..	456
1947	..	..	429
1946	..	..	519

Rheumatism (Acute)

Notifications 1952

0-4 years	5-9 years	10-14 years	15+	Total
3	14	25	2	44

Tabulation by age, sex and clinical classification of cases notified as acute rheumatism during the year 1952.
Notification area C.C. Bristol C.B.

Clinical Classification of Case Notified.	AGE IN YEARS										Total All Ages		Total Both Sexes
	0-4		5-9		10-14		15 over						
	M.	F.	M.	F.	M.	F.	M.	F.					
1. Rheumatic Pains and/or Arthritis without heart disease	1	—	2	3	4	3	1	—	8	6	14		
2. Rheumatic Heart Disease (Active)													
(a) alone.	—	—	—	3	—	5	—	1	—	9	9		
(b) with polyarthritis.	—	—	3	1	3	3	—	—	6	4	10		
(c) with chorea.						1				1	1		
3. Rheumatic Heart Disease (Quiescent)													
4. Rheumatic Chorea (alone)		1				3			—	4	4		
TOTAL Rheumatic Cases	1	1	5	7	7	15	1	1	14	24	38		
5. Congenital Heart Disease.													
6. Other non-rheumatic heart disease or disorder.													
7. Not rheumatic or cardiac disease.	1	—	1	1	1	2	—	—	3	3	6		
TOTAL non-rheumatic cases	1	—	1	1	1	2	—	—	3	3	6		

Scarlet Fever

During 1952 there were 866 notified cases, an increase of 320 on the figure of the previous year (546). This is the highest number recorded for nine years (1943—913 cases). No death resulted from this disease during the past year.

Notifications—1947-1952 :

<i>Year</i>	<i>Number</i>	<i>Rate per 1,000 population</i>
1952	866	1.95
1951	546	1.24
1950	821	1.86
1949	785	1.78
1948	547	1.26
1947	463	1.08

It is noted that of the 866 cases, 524 were between the ages of five and ten, and 63 were between ten and fifteen, so that 587 or approximately two out of every three were of school age. Only about half of the cases necessitated hospital admission, however.

Typhoid Fever

Two cases were notified during 1952, both in children under five years of age. There were no deaths.

Incidence 1945-1952

1945	1946	1947	1948	1949	1950	1951	1952
2	1	2	1	7	—	—	2

Tuberculosis

Pulmonary Tuberculosis

During the past year the department learned of 582 cases by notification and otherwise, only 16 cases less than during 1951, which was the year of highest recorded incidence since 1946.

Deaths from this cause registered in Bristol during 1952 numbered 93 (including 15 non-residents). This is the lowest number ever registered in Bristol and is 51 less than the figure for 1951 (144 including 14 non-residents) and 91 less than the 1950 total of 184.

Non-Pulmonary Tuberculosis

A total of 60 cases came to the notice of the department during 1952, 10 cases less than in 1951 and three less than the low level record of 1950. Deaths registered in the city during 1952 were 17 (including 7 non-residents). In 1951 the total was also 17 (including 6 non-residents).

(The Registrar-General's figures for deaths, given in the tables below, have been corrected for transfers.)

Tuberculosis—1945 to 1952

Pulmonary Tuberculosis				
Year	Incidence	Attack rate per 1,000 population	R.G.'s No. deaths (corrected)	Death rate per 1,000 population
1952	582	1.31	91	0.21
1951	598	1.35	150	0.34
1950	495	1.12	182	0.41
1949	552	1.26	194	0.44
1948	540	1.24	208	0.48
1947	521	1.22	241	0.56
1946	598	1.44	236	0.57
1945	551	1.33	252	0.61

Non-Pulmonary Tuberculosis				
Year	Incidence	Attack rate per 1,000 population	R.G.'s No. deaths (corrected)	Death rate per 1,000 population
1952	60	0.14	11	0.03
1951	70	0.16	14	0.03
1950	63	0.14	19	0.04
1949	83	0.19	23	0.05
1948	95	0.22	30	0.07
1947	95	0.22	35	0.08
1946	93	0.22	30	0.07
1945	81	0.20	54	0.13

Whooping Cough

There were 1,830 cases notified during 1952. There was one death—an infant aged three months.

Notifications—1948 to 1952—by quarters :

	1952	1951	1950	1949	1948
1st Quarter	913	310	409	69	679
2nd „	563	389	1,209	128	637
3rd „	212	595	1,162	63	390
4th „	142	608	301	109	132
Totals	1,830	1,902	3,081	369	1,838

Notifications—1944 to 1952—and Deaths :

Year	Notifications	Death of Bristol residents
1952 ..	1,830	1
1951 ..	1,902	2
1950 ..	3,081	2
1949 ..	369	2
1948 ..	1,838	8
1947 ..	747	4
1946 ..	705	4
1945 ..	497	4
1944 ..	917	11

4. METEOROLOGICAL OBSERVATIONS 1952

(From observations taken daily at 9 a.m. G.M.T., rainfall being entered to previous day)

By H. H. Harding, M.A., F.R.Met. Soc., Frampton Cotterell, Nr. Bristol.

Mean pressure at 9 a.m. (corrected M.S.L.)	..	29.904 ins.
Departure from average	.. ..	-0.049 ins.
Greatest pressure	.. ..	30.625 ins. on Feb. 5th
Least pressure	.. ..	29.007 ins. on Dec. 13th
Total rainfall at Bishopston (St. Andrew's Park)		35.88 ins.
Departure from average at Clifton (39 yrs.)	..	+0.79 ins.
Number of rainy days	.. ..	180
Heaviest fall in 24 hours	.. ..	1.63 ins. on May 1st
Total rainfall at Frampton Cotterell	.. ..	33.53 ins.
Departure from average	.. ..	+2.01 ins.
Number of rainy days	.. ..	184
Departure from average	.. ..	+0.8
Days with 0.04 ins. or more	.. ..	127
Days with less than 0.04 ins.	.. ..	57
Days with trace (less than 0.005 ins.)	.. ..	9
Heaviest fall in 24 hrs.	.. ..	1.25 ins. on May 1st
Mean humidity at 9 a.m.	.. ..	86.6
Mean temperature	.. ..	49.1°
Departure from average	.. ..	-0.3°
Maximum temperature in screen	.. ..	88° on July 1st
Minimum temperature in screen	.. ..	17° on Dec. 5th
Minimum temperature on grass	.. ..	15.2° on Jan. 20th
Extreme range in screen	.. ..	71°
Mean of warmest day	.. ..	72.2° on July 22nd
Mean of coldest day	.. ..	26.5° on Dec. 5th
Hours of bright sunshine (estimated)	.. ..	1,865
Departure from average	.. ..	+326
Days of bright sunshine	.. ..	94
Days entirely overcast	.. ..	66
Days with snow	.. ..	15
Days with thunder	.. ..	13
Days with fog	.. ..	30
Days with frost	.. ..	65
Days with ground frost	.. ..	111

PERSONAL HEALTH SERVICES

SURVEY OF LOCAL HEALTH SERVICES

GENERAL

	Page
1. Administration - - - - -	1
2. Co-ordination and Co-operation with other parts of National Health Service - - -	2-4
3. Joint use of Staff - - - - -	5
4. Voluntary Organisations - - - -	5

PARTICULAR SERVICES

5. Care of Expectant and Nursing Mothers and Children under school age - - -	6-8
6. Domiciliary Midwifery - - - -	9
7. Health Visiting - - - - -	10-12
8. Home Nursing - - - - -	14-16
9. Vaccination and Immunisation - - -	17-18
10. Ambulance Service - - - - -	19-20
11. Prevention, Care and After Care - - -	20-26
(a) Tuberculosis - - - - -	20-23
(b) Summary of Care and After Care Services - - - - -	24
(c) Venereal Disease - - - - -	24-26
12. Domestic Help - - - - -	26-27
13. Health Education - - - - -	27-29
14. Mental Health - - - - -	29-34

STATISTICS

M.D. Acts—1913-1938 - - - - -	35-37
Table 1—Maternity and Child Welfare - - -	38-42
Table 2—Maternity and Child Welfare — Welfare Department - - - - -	43
Table 3—Dental Department - - - - -	43
Table 4—Sunlight Treatment - - - - -	44
Table 5—Eye Clinic - - - - -	44
Table 6—Orthopædic Department - - - -	44
Table 7—Foot Clinic - - - - -	44
Table 8—Ear, Nose and Throat Department - -	45
Table 9—X-Ray Department - - - - -	45
Table 10—Scabies Baths - - - - -	45
Table 11—Dispensary - - - - -	46
Table 12—Diphtheria Immunisation - - - -	46
Table 13—Day Nurseries - - - - -	46
Table 14—Home Helps, 1952 - - - - -	47
Table 15—Care and After-Care, Nursing Appliances Equipment for Loan - - - - -	47
Table 16—Nursing Statistics - - - - -	48
Table 17—Ambulance Service Statistics, 1952 -	49
Table 18—Venereal Disease Statistics - - -	50

SURVEY OF LOCAL HEALTH SERVICES *

GENERAL

1. Administration.

The Department of Public Health, Bristol is organised in main sections covering the following services :—maternity and child welfare, mental health, port health, tuberculosis and a section dealing with environment and sanitation. In charge of each of the first three sections is a senior medical officer who is responsible for the day-to-day supervision of the work in his or her own particular section. The school health service is also under the control of the Medical Officer of Health and in this instance, too, a senior medical officer is responsible for the day-to-day supervision of the work. Co-ordination of the work in the various sections is undertaken by the Medical Officer of Health and his deputy. The section dealing with environment and sanitation is under the immediate supervision of a Chief Sanitary Inspector and his deputy, who are responsible to the Medical Officer of Health. In addition, there are various sub-sections of the main sections, such as the domiciliary midwifery service under the immediate direction of a superintendent midwife.

There are other sub-sections to deal with particular services, for example, the home help service which is under the immediate supervision of a home help organiser who is responsible directly to the Chief Nursing Officer : the day-to-day-operational activities of the ambulance section are under the immediate supervision of the Chief Ambulance Officer : the co-ordination of health education activities of the department is undertaken by the Personal Assistant to the Medical Officer of Health. The district nursing service is provided on an agency basis by the Bristol District Nursing Association, which is a voluntary body.

Working side by side with the senior medical staff is the lay administration with a lay administrative officer in immediate charge and section officers who deal with staffing and wages, finance and records. The lay administrative staff have responsibility, under the supervision of the Medical Officer of Health, for the scrutiny and certification of the expenditure of the department amounting to between half-a-million and £600,000 per annum. The lay administrative officer controls all the administrative and clerical staff in the various sections of the department and it is his duty to ensure that all sections are at all times properly staffed and equipped to meet the demands of professional and technical officers. There is a Chief Nursing Officer for the co-ordination of health visiting and midwifery activities within the department and for liaison with the Nursing Superintendent of the District Nursing Association.

Co-ordination and co-operation of the various sections is facilitated by regular meetings between the senior medical officers and lay staff, and meetings amongst health visitors themselves and amongst sanitary inspectors. In addition, frequent ad hoc meetings are arranged between the different section heads. In general, the various senior medical officers attend and report direct to the appropriate Sub-Committees, for example, the Senior Medical Officer for Maternity and Child Welfare attends the Nursing Services Sub-Committee ; and the Senior Medical

* This survey, with some minor modifications and additional data, corresponds to a report requested by and forwarded to the Ministry of Health in February 1953.

Officer for Mental Health, the Mental Health Services Sub-Committee, etc. The Chief Sanitary Inspector attends the Sanitary Sub-Committee and the lay administrative officer the Sub-Committee dealing with staff as well as the main committee.

2. Co-ordination and Co-operation with other parts of the National Health Service.

(a) Co-ordination and co-operation between Local Health Services and the Hospital and Specialist Services.

As far as this is possible under the circumstances, it is being achieved in the following ways :—

- (i) *Interlocking membership of committees.* A number of members of the City Council are also members of one or other of the 13 Hospital Management Committees in Bristol. In addition, the Deputy Medical Officer of Health and the Senior Medical Officers are members of various Hospital Management Committees. Interlocking membership does help a little to keep both branches of the service informed of each other's activities.
 - (ii) *Membership of ad hoc and joint committees.* The Medical Officer of Health is a member of the Board of Governors of the Teaching Hospitals. The Deputy Medical Officer of Health is a member of the Clinical Area Medical Advisory Committee and of an ad hoc committee which has been set up for the geriatric services within the City of Bristol, and on which there is representation of the Regional Hospital Board, the Welfare and the Health Authority. The Senior Medical Officer for Maternity and Child Welfare is a member of the ad hoc sub-committee which has been set up to deal with the co-ordination of the maternity services. On all these committees there is, in addition, general practitioner representation.
- Generally it may be said that those committees which have been set up for dealing with Local Health Services have provided a means for interchange of views between the people concerned, but the system is not conducive to action. In addition, the overweighting of the advisory committees and others in favour of treatment leaves the preventive aspect with little support. Furthermore, the medical experts available have no administrative training or experience and the loss of the administrative medical expert, particularly in management committees, is only too apparent. There is no one medical person who carries the overall medical picture of the people. It is reminiscent of the Poor Law system under the Clerk of the Guardians, with the stress on administration and not on effective and efficient action.
- (iii) *Interchange of records.* There is a reasonably satisfactory method of interchange of records between the hospitals and the Local Health Authority and the general practitioners; and between the Local Health Authority and the hospitals. This applies particularly to the interchange of ante-natal and post-natal records; the reference to and discharge from hospital of school and pre-school children, and the admission to and discharge from the infectious diseases and geriatric hospitals.
 - (iv) *Co-operation at the professional level.* Four years ago the West of England Child Health Group was formed with the object of

fostering co-operation between medical officers in the public health service and doctors working in hospitals. The group meet once a month during the academic year. These meetings have been very successful and have helped considerably in facilitating co-operation at the personal professional level. The Secretary of the Group is the Deputy Medical Officer of Health and the Chairman is the Senior Medical Officer for Schools, so that it will be seen that this venture is perhaps predominantly a Health Department activity, although attendance by all interested is good. On the other hand, the Professor of Child Health has regular Pathological Conferences at the Children's Hospital to which medical officers of the Health Department have been invited and have attended with profit.

- (v) *Miscellaneous.* The health visiting staff work in fairly close co-operation with the local hospitals, particularly with the Children's Hospital and the Geriatric Hospital and at both these hospitals they have personal contact with the almoner concerned. Two health visitors are occupied for the whole of their time in visiting the aged sick who are living in their own homes. During the latter part of 1952 they carried out, on behalf of the Regional Hospital Board, a complete survey of all the aged sick who are on a waiting list for a hospital bed. This was done with the fullest co-operation of the general medical practitioners, although the reports and recommendations of the health visitors were confined solely to social issues.

The admission of many of the infectious disease cases to the isolation hospital is arranged by the Health Department.

The supervision of mental defective cases on licence leave is undertaken on behalf of the Regional Hospital Board by the Duly Authorised Officers employed in the mental health section.

Even within all these schemes the extent and spirit of co-operation varies with the will of the doctors and others to co-operate.

(b) Information Services.

The following publications are issued in order to inform general practitioners and the public of the services available and how they may be used :—

- (i) "*Health Services in Bristol.*" This is a booklet describing the health services available to both general practitioners and the general public in the Bristol area.
- (ii) "*Introducing the Mental Health Service.*" This is another booklet which describes the mental health facilities available to practitioners and members of the general public.
- (iii) *General Practitioner Bulletins.* A health information bulletin is issued regularly to general medical practitioners and hospital doctors by the Medical Officer of Health. In this, full information is given of the current epidemiological situation as well as other items of general and special interest.
- (iv) *Lectures to various groups.* Both the medical and the lay staff of the department frequently give lectures to outside organisations on the facilities provided by the Health Department.

- (v) The Local Health Authority services are also well publicised in booklets issued by the Publicity Department and a Guide to the Social Services of Bristol issued by the Bristol Council of Social Service.

(c) Co-ordination and co-operation with general practitioners.

There is no co-option of general practitioners on the Health Committee. In addition to the monthly bulletin issued by the Medical Officer of Health to all general practitioners co-operation is achieved by the following arrangements :—

- (i) The Medical Officer of Health is a member of the Local Medical Committee and so receives all the minutes of that Committee.
- (ii) The Deputy Medical Officer is joint Honorary Secretary of the local division of the British Medical Association.
- (iii) There is in existence a Joint Committee of representatives of the Health and Housing Committee which has been set up for the purpose of dealing with applications on new housing estates by medical practitioners who desire either to work in a health centre or to obtain their own house.
- (iv) The work of the sick visitors to the aged has already been mentioned.
- (v) *The William Budd Health Centre*, This health centre, which was opened in September, 1952, promises the most effective form of co-operation with general practitioners. Accounts of this health centre have appeared elsewhere but it is interesting to note that although the health centre has only been in operation for the past five months important steps to improve the co-ordination of the health services in the locality served by the centre have already been taken, for example, several of the practitioners working in the centre are now conducting their own ante-natal and infant welfare clinics with the assistance and co-operation of the local district midwives and health visitors. In addition, the general practitioners are co-operating with the health visitors, district nurses and sanitary inspectors in that locality in dealing with difficult social and environmental problems in the homes of their patients. Moreover, the nutritionist, who is on the staff of the Local Health Authority is giving valuable nutritional and dietary advice to any of their patients who are in need.
- (vi) In one or two areas of the City, the Local Health Authority midwives are in attendance at ante-natal clinics conducted in general practitioners' premises. The special facilities of relaxation classes, routine blood tests, etc., of the Local Health Authority clinics are available to and used by general practitioners.
- (vii) Negotiations are proceeding with practitioners on a new housing estate to encourage them to work in a newly erected health clinic. Other negotiations are being conducted with the Local Dental Committee to try to persuade dentists to work in this clinic on a sessional basis to give Part IV services to the general public. The clinic would then become a health centre.

3. Joint use of Staff.

(a) *Employment of specialists and consultants in Local Health Authority clinics* :—Specialists and consultants employed by the Regional Hospital Board or the Board of Governors of the Teaching Hospitals provide services for the Local Health and Education Authorities in their clinics—ophthalmology, dermatology, orthopaedic, orthodontic, obstetric and paediatrics. In addition the Local Authority employ consultants in their clinics for the following purposes :—otorhinolaryngology, ophthalmology, radiology and chest diseases.

(b) *Local Authority staff employed in hospitals* :—Three medical officers on the Local Health Authority staff have been graded Honorary Senior Hospital Medical Officers. Two of these hold regular sessions in the paediatric departments of the hospitals and one carries out venereology work on behalf of the Regional Hospital Board. In addition, Assistant Medical Officers spend time in 'rota' as clinical assistants in the Children's Hospital. A Local Authority clinic for spastics has been organised at the Children's Hospital and Local Authority staff attend this clinic. In addition, a hearing-loss assessment clinic has been organised at the Bristol General Hospital and both Local Health and Education Authority staff attend this clinic.

(c) *Employment of general practitioners in Local Health Authority and Local Education Authority clinics* :—General practitioners are employed on a part-time basis to the extent of 67 sessions per week in Local Health and Education Authority clinics. Here they carry out ante-natal, post-natal, infant welfare and school medical work.

4. Voluntary organisations.

The Local Health Authority's duties under Section 25 of the National Health Service Act are carried out on an agency basis by the Bristol District Nursing Association ; details of this service are given below.

In addition, there is close co-operation between the Health Department and the Bristol Council of Social Service who provide laundry and chiropody services for the aged, give assistance with furniture and clothing to certain types of families and also supplementary convalescent home facilities.

There is also co-operation with the W.V.S. through whose help voluntary workers are provided for infant welfare clinics and they are also responsible for assisting with the provision of a sitting-case car service.

Grove House voluntary home, with the support of the Local Health Authority, provide long-stay hostel accommodation for unmarried mothers and their children. Places in short-stay homes for unmarried mothers are provided by three other voluntary organisations.

The Bristol Tuberculosis Voluntary Care Committee provide for after-care of persons suffering from tuberculosis and receive grant from the Local Health Authority (see page 24).

PARTICULAR SERVICES**5. CARE OF EXPECTANT AND NURSING MOTHERS AND CHILDREN UNDER SCHOOL AGE.****(a) Expectant and Nursing Mothers.**

- (i) *Ante-natal care*—There are 15 ante-natal centres in the city, where a total of 30 medical officer's sessions and 15 midwives' sessions are held each week. Consultant obstetricians employed by the Regional Hospital Board attend at eleven of these centres. All patients attending ante-natal centres are referred to the obstetrician for routine examination at the 36th week and at any time should an abnormality arise. This scheme was in operation many years before the National Health Service Act was passed. It is estimated that nearly 60% of all expectant mothers in Bristol pass through the Local Health Authority clinics and 35% subsequently attend the post-natal clinics.

The following special services are provided :—

1. Routine Kahn, Rhesus and haemoglobin tests.
2. Routine chest x-rays.
3. Dental treatment as required (see statement under (e) below).
4. Ante and post-natal exercises and relaxation classes conducted by a physiotherapist at seven centres. These classes are proving very popular. It is proposed to extend this service to meet the increasing demand.
5. Ante-natal lactation classes at five centres.
6. Mothercraft classes. The number of these has been extended during the year. Classes for mothers booked for hospital confinement are taken by health visitors at 13 of the centres. Group teaching by the midwives is being introduced in their clinics. The response of primiparae appears to be encouraging.
7. Special diagnostic clinic—at the Central Health Clinic and staffed by a consultant venereologist. Patients are referred to this clinic as follows :—
 - a. For vaginal discharge (facilities for treatment of non-V.D. discharges available).
 - b. For further investigation when routine blood Kahn test is +ve.
 - c. Unmarried mothers.

Confirmed V.D. cases are treated at the hospital centres.

- (ii) *Post-natal care*—Clinics are held at ten centres. Birth control instruction is given at these clinics to women requiring this advice for medical reasons.
- (iii) *Maternity outfits* (sterile) are issued free for all domiciliary confinements and ante-natal clinics are used as distributing centres.
- (iv) *Care of unmarried mothers*—A welfare officer and her deputy on the Local Health Authority staff, with clerical assistance, undertake the special supervision of unmarried mothers. The City own and administer a Mother and Baby Home providing

accommodation for 17 mothers and 13 babies. Hostel provision:— A voluntary home, Grove House, has recently, with the support of the Local Health Authority, undertaken to provide hostel accommodation for nine mothers and their children.

(b) Child Welfare.

There are 36 child welfare centres* with an average of 65 sessions a week in the city. The clinics are staffed by medical officers employed either full-time or part-time by the Local Health Authority. The latter include general practitioners, but they are employed in centres outside the area of their practices. It is estimated that 87% of children under one year and 19.1% of children 1—5 years attend the Local Health Authority clinics.

At the new "William Budd" Health Centre assistance is given by the Local Health Authority health visiting staff at Infant Welfare sessions run by the general practitioners working from the centre.

The following consultant and special clinics are provided :— ophthalmic ; ear, nose and throat ; dermatological ; chest (including facilities for B.C.G. vaccination) ; orthopaedic ; dental ; artificial sunlight ; child guidance.

Liaison with the Children's Department.

The Medical Officer of Health is the Medical advisor to the Children's Committee. Close co-operation is maintained between the staffs of the two departments. Two of the Senior Medical Officers on the Maternity and Child Welfare staff—Dr. G. Hartley and Dr. A. Craig, act as Medical Officers to the Residential Nurseries and Children's Homes. In addition, Dr. A. Craig undertakes the Medical examination of children prior to adoption.

(c) Care of premature infants.

A scheme for the domiciliary care of premature babies is organised in co-operation with the consultants in charge of the Premature Baby Unit at Southmead Hospital. (This scheme was outlined in the annual report for 1950).

Two midwives are employed whole-time by the Local Health Authority in connection with the premature baby scheme. Six sets of special equipment are provided, each set including the following :—

Cot, hot-water bottles, oxygen tent, feeding equipment, dressing drum containing sterile syringes, swabs and towels.

The services of a paediatric registrar, and if necessary a consultant, are available immediately if required.

Two specially trained health visitors undertake the follow-up of premature babies in the home.

(d) Supply of dried milk, etc.

In co-operation with the Ministry of Food, welfare foods are distributed at the majority of ante-natal and child welfare clinics in the

* NOTE.—8 of these are Local Authority clinic premises ; 7 being specially built for the purpose and nearly in full-time use.

city, to mothers attending the centres. Other dried milks, including Ostermilk, Cow & Gate and Trufood, and simple nutrients, *e.g.*, vitamin, calcium and iron preparations, are also available at the centres.

(e) Dental Services.

The dental services were seriously affected by the passing of the 1946 National Health Service Act so that the staff had fallen to six dental officers in 1950. By the end of 1952 the position had improved and the Local Health Authority now has the equivalent of nine full-time dentists, although it will be appreciated that the city dental services are provided for both the school health and maternity and child welfare services. The following remarks are applicable for the latter.

The shortage of staff in recent years has very seriously affected the provision that could be made to deal with the large number of expectant and nursing mothers (approx. 6,000) in the city. During this period treatment has been provided for cases referred by the medical officers at the ante- and post-natal sessions for mothers who apply personally for treatment at the clinics and for those who are sent by the health visitors. Approximately 10% of all Bristol expectant mothers were treated by Local Authority dentists in 1952.

Every effort is being made to bring the staff up to strength to enable the Department to arrange an inspection by a dentist of *every* mother attending the ante- and post-natal sessions and to offer treatment where necessary. A surgery is being equipped at the Southmead Clinic to enable the Local Authority's dentists to treat the large number of mothers attending there.

Dentures are now provided for those mothers needing them and plans are in hand for a workroom to be equipped and a full-time mechanic engaged.

The number of pre-school children who are brought to the clinics for treatment is steadily increasing. This side of the work is of great importance as it is so closely bound up with the treatment of the children throughout school life. Approximately 7% of all Bristol children under five years were treated by Local Authority dentists in 1952.

An oral hygienist has been employed throughout most of the year. She has carried out, under the supervision of the chief dental officer, scaling and polishing of teeth and has proved a useful addition to the staff for teaching dental hygiene.

(f) Other provision.

- (i) *Day nurseries*.—Seven day nurseries with accommodation for 290 children are provided by the Local Health Authority. Children are only admitted for health or social reasons.
- (ii) *Infertility clinic*.—This clinic provides for advice and investigation of both partners of an infertile marriage. Dr. Dorma Boxall undertakes the sessions for women and Dr. Irving Bell the sessions for men. A consultant session under the direction of the Professor of Obstetrics (Professor Lennon) is held in association with this clinic.

6. DOMICILIARY MIDWIFERY

The midwifery service is provided directly by the Local Health Authority. Staff at present :—32 including two whole-time midwives engaged in dealing with premature babies ; one non-medical supervisor and one deputy non-medical supervisor who is also sister tutor for Part II pupils on district. The non-medical supervisor works directly under the supervision of the Senior Medical Officer Maternity and Child Welfare.

The proportion of births taking place on the district is approximately 30% of all confinements in the city and in about one-third of these cases the midwife acts as maternity nurse.

The midwives employed by the Local Authority are seen at their work as frequently as the supervisor thinks necessary but at not less than 3—4 monthly intervals. Their equipment and records are inspected at home at 3—4 monthly intervals. Special cases, *i.e.*, pyrexia, sticky eyes, etc., are seen as they occur and investigated.

There are no domiciliary midwives in Bristol who are not employed by the Local Authority.

Administration of analgesia :—All midwives, except one, are trained in the use of gas and air analgesia and every patient who desires it can have this facility. All midwives carry pethedine and other sedatives.

Ante-natal supervision. All patients are seen by the midwife at home 3—4 times during pregnancy. Those who have not booked a doctor, or where the doctor only wishes to carry out the two ante-natal examinations required by the Act, can attend the midwives' session in the Local Authority's clinic. Some patients attend both doctor and midwife. When requested by the doctor, blood specimens are taken at the Local Authority's clinics, and arrangements are made for their patients to attend relaxation classes.

Co-operation with the general practitioner in most areas is good, but in some areas the midwives do not know the patient is pregnant until the 8th month.

After the first attendance at any ante-natal clinic in the city, the home conditions of every patient are investigated by the midwife (when there is no medical reason for admission to hospital) as to the suitability for home confinement. This is reported to the supervisor of midwives who adds her comments. The final decision is made by the Senior Medical Officer, Maternity and Child Welfare.

A certain number of midwives attend official post-graduate schools each year. Four attended in 1952. The policy is for each midwife to attend a course once every five years.

Pupil midwives (72 per annum) receive their district training under trained midwives and mostly live in lodgings. Tutorials are given by the sister tutor (three weekly) who supervises practical work and equipment. Public health lectures are given by the Deputy Medical Officer of Health.

7. HEALTH VISITING.

General description of the health visiting service.

The health visiting service is divided into two main parts :—

- (a) Home visiting.
- (b) Clinic duties.

Certain clinic duties are carried out by nurses who thus relieve the health visitors to carry out the more important duties for which they are qualified.

The establishment includes 65 full-time health visitors (inclusive of seven sisters-in-charge of clinics), eight part-time health visitors, seven tuberculosis visitors and seven full-time and 27 part-time clinic nurses.

(a) Home visiting.

The health visitor has, since the introduction of the National Health Service Act, widened the scope of her duties. Her district work at the present time includes visiting in respect of :—

- Expectant and nursing mothers.
- Children under the age of five years.
- Premature babies.
- Control and follow-up of infectious diseases.
- Follow-up of cancer patients (in co-operation with the Cancer Research Department).
- Blind Welfare (in co-operation with the Welfare Services).
- Old people's welfare.
- Miscellaneous.

The conception of her work is changing and increasing insistence is now being placed on the health visitor's function as a teacher. More and more, she is carrying health teaching into the home, not only on the care of the baby but on the management of the school child, the adolescent, the adult and the aged. No special mode of procedure, however, has yet been brought into operation in respect of these extra duties imposed on the health visitor, and the birth of a baby is still her handle of admission into a home.

Until more health visitors are available this additional work cannot be fully covered. In the meantime the main structure of her work remains very much the same, *i.e.*, visiting in connection with babies and young children.

In an endeavour to prevent multiplicity of visitors to any one household, the health visitors are, in general, "all-purpose" workers; nevertheless a certain amount of specialisation is found to be an advantage. In Bristol, health visitors specialise in :—

- (i) Premature baby work.
- (ii) The control and follow-up of infectious diseases.
- (iii) Blind welfare.
- (iv) The sick aged living at home.

In the latter connection, two health visitors are fully employed. They have a register of old people who are brought to their notice through various channels, for example, doctors, district nurses, clergy, almoners,

Council of Social Service, pensioners' clubs and friends. These two health visitors pay the initial visit and take any action arising out of that visit, such as expediting admission to the hospital, the provision of a home help or mobile meals, and contacting any statutory or voluntary agency able to help. The routine follow-up of old people is undertaken by the district health visitors, who can enlist the help of the two special health visitors when difficulties arise.

Owing to the relative shortage of health visitors, selective visiting was put into operation two years ago. Before then, every mother with a child was visited regularly by the health visitor. With selective visiting, families are graded according to need, and difficult and problem families are visited with more frequency than normal families, with a fuller appreciation of their obligations.

Tuberculosis visiting :—Prior to June 1952, tuberculosis home visits were carried out by district health visitors with the exception of the primary visits, which were undertaken by one health visitor who specialised in this work. Clinic duties were carried out by three clinic nurses employed by the Regional Hospital Board.

In June 1952, a team of seven tuberculosis visitors was appointed jointly with the Board. The team included the three clinic nurses and these seven visitors now combine home visiting and clinic duties.

Each visitor has her own district and her duties include visiting in respect of primary notification; routine follow-up of notified cases; contacts; discharge from sanatoria; application and reading of patch tests in connection with B.C.G. vaccination; and welfare visiting in respect of provision of bedding, and clothing; disinfection of houses; general housing and money allowances.

The advantages in having a team of visitors who combine home visiting with clinic duties are obvious. They see their patients more frequently, have ready access to records, and can more easily discuss problems with the chest physicians.

Close co-operation exists between tuberculosis visitors and the health visitors, and the health visitors are informed of all notifications of tuberculosis where there is a child under five years in the family.

(b) Work in clinics and nursery schools and classes.

- (i) *Work undertaken by Health visitors*—Health visitors are responsible for the efficient running of all clinics where advice and health education are carried out. These clinics include :—ante-natal; post-natal and birth control; infant welfare and sterility clinics.

In ante-natal clinics, the health visitors give ante-natal demonstrations and also lactation instruction.

In infant welfare clinics, the health visitors interview each mother separately, giving advice on the general care and management of the baby and young child. In addition, group teaching is given. Cases requiring medical advice are referred to the clinic doctor.

Nursery schools and classes.—The health visitor pays regular visits to the nursery schools and classes in her district with regard to general health, prevention of

uncleanliness, infection and minor ailments. She is also present at the medical inspection with the doctor in order to advise him of home and social conditions, etc.

- (ii) *Work undertaken by clinic nurses.*—There are seven full-time clinic nurses ; the others are married nurses employed on a sessional basis, and their sessions vary according to the needs of the Department. Originally, clinic nurses were appointed to overcome the shortage of health visitors, but their usefulness has been proved and there is no doubt that, far from encroaching on the health visitor's duties, they raise her status by relieving her of routine duties in ante-natal, post-natal, minor ailment and infant welfare clinics. They do not carry out home visiting neither do they encroach on the health visitor's field of health education.

Training of health visitors.

A training course for student health visitors is held at Bristol University every year from September to March. A maximum of 24 students is accepted and about half of these are assisted by the Bristol Health Committee. These assisted students are employed under contract for a year after completion of the course.

Refresher courses.

For the past three years, a university refresher course of one week's duration has been held. Twenty health visitors have attended each of these courses, in addition to a small number of health visitors from surrounding counties.

Health visitors attended courses held under the auspices of the Central Council for Health Education in 1949 and 1951.

Two health visitors annually attend refresher courses of two week's duration held either by the Royal College of Nursing or the Women's Public Health Officers Association.

Teaching and Training 1952.

Student Health Visitors.

Out of 41 applications for the Health Visitors Course, 20 students were finally selected for interview, and all of these were accepted for training.

The students comprised the following :—

- 1 Plymouth (Assisted).
- 8 Somerset C.C. Midwives (Assisted).
- 8 Bristol (Assisted).
- 1 Warwickshire (Assisted).
- 2 Unassisted.

During March, 12 of the students travelled to Newcastle to sit for the Health Visitors Certificate, this being the first available centre on completion of the six months training. Of these, 9 were successful. The remaining 8, and the 3 who had failed, presented themselves for the

examination held in London during April, and 10 of these were successful. The one failure obtained her certificate later. There are 22 students at present training.

Nursery Students.

Fifty students presented themselves for the examination of the National Nursery Board held in Bristol in October, and 44 were successful. The students attended lectures at the Training Centre at Stoke Lodge but were employed in various nurseries as follows :—

5—Victoria Gibb's Nursery, Children's Society.

5—Nazareth House.

9—Downend Nursery.

31—Local Education Authority.

Owing to the increase in the number of students, the Assistant Tutor is required to spend four days of each week at the Training Centre, thus reducing the time which might be given to meeting any requests for talks to clubs and guilds, and for assistance with Health Visitor Training.

Teaching in Ante-natal and Infant Welfare Centres.

The number of talks being given by outside speakers is being reduced and more are being given by the health visitors as part of their routine activities. Films and film strips are being used as visual aids to augment their group teaching activities in the clinics. Ante-natal demonstrations and Make and Mend classes (given by a teacher arranged by the Local Education Authority) are much appreciated by mothers attending the clinics.

Talks to Clubs and Guilds.

Thirty parties have visited the Central Health Clinic and have been given talks by the Sister Tutor during 1952. Eleven lectures have been given to Home Helps on their course by the Assistant Tutor. The introduction of these lectures is reported on elsewhere in this report and a link up is made with the district nurses, the health visitor for the care of the aged, and midwives.

The new General Nursing Syllabus will bring fresh work in the teaching to be given to nurses in hospitals on the preventive side of medicine and should, in time, be a stimulus to the work of nurses everywhere.

8. HOME NURSING.

Bristol District Nursing Association became affiliated to the Queen's Institute of District Nursing in 1944 and in 1948 became the agents for providing the home nursing service for the Local Health Authority. The Chief Nursing Officer is responsible for co-ordinating this with the health visiting service.

The staff is as follows :—

Administrative Nursing Staff :—

Senior Superintendent ...	...	...	1
Deputy Superintendent	...	...	1
Area Superintendents ...	...	...	2

Training Home Staff :—

Superintendent ...	...	...	1
Assistant Superintendents	...	...	2

Nursing Staff :—

Queen's Nursing Sisters	...	...	45
Male Queen's Nurses ...	...	...	7
State Registered Nurses	...	...	19
Student Queen's Nurses	...	...	11
State Enrolled Asst. Nurses	...	...	14

Central Lay Administrative Staff :—

Secretary to the Bristol District Nursing Association	...	...	...	1
Asst. Secretary to the Bristol District Nursing Association	...	...	...	1
Shorthand-Typist	...	...	...	1
Secretary to the Nursing Superintendent	...	...	...	1
Part-time clerks	...	...	...	2

The Senior Superintendent is responsible for interviewing all staff students ; suitable applicants are then seen by the Superintendent of the Training Home before finally being accepted.

Applicants for the post of Queen's Sister are interviewed by the Senior Superintendent. Suitable applications are then reported to the Nursing Staff Committee for approval but the Committee does not interview except in the case of administrative staff.

The Senior Superintendent also supervises the nursing staff and generally assists, advises, and deals with any problems. She arranges off duty, holiday and sickness relief, and orders all medical and nursing supplies, cleaning material, china and hardware stores, etc., for the training and branch homes. The orders for the Training Home are, of course, made out by the Training Home Superintendent and are then sent to the Senior Superintendent so that they may be included in the bulk order for all the establishments. Orders are made every six months except for medical supplies and they are ordered more often. The stores are kept at the Central Office and issued when required.

The *Area Superintendents*, who live in a flat over the Central Offices are responsible for the supervision of the non-resident staff working on single districts and for those living in the branch homes. They are also responsible for the instruction and supervision of the State Enrolled Assistant Nurses, and for receiving and transmitting nursing messages which may come to the Central Office after office hours.

Branch Homes :—There are three branch homes. The homes vary in size, each accommodating three or four nurses. .

Single Districts :—The remaining staff of approximately 76 nurses live on or near the district in which they work ; eight of them occupy unfurnished houses which they rent from the Association who in turn rent them from the Local Housing Authority. These houses are all on the new estates. The Housing Committee have been most sympathetic and helpful and there has been very little difficulty in obtaining houses when and where required. All the staff working on single districts and those living at the Branch Homes report to the Central Office one afternoon each month. Reports are taken by the Senior Superintendent and the Deputy ; the Area Superintendents assist when necessary. Stores for restocking bags, uniform, travelling expenses and petrol allowance are issued on these afternoons.

On one afternoon a month the nursing staff hold a meeting at the Central Office. This is arranged in conjunction with the Bristol Branch of the Association of Queen's Nurses. The staff elect their own honorary officers and arrange a programme of lectures and social events, but the first half hour of each meeting is devoted to professional discussion.

Night Nurse :—There is one night nurse on duty from 9 p.m. until 8.30 a.m. She is a car driver and is prepared to go to any part of Bristol to carry out treatment which only a trained nurse should do. She gives all the late morphia injections. She does not remain with a patient all night.

Training Home :—The Training Home was opened in 1945 and the area of the city served requires a staff of 20—25 nurses according to the number of students in training, as of course, the students have smaller districts than the Queen's Nursing Sisters.

The Home has been extended and now consists of two houses with communication between them. The majority of the Queen's Sisters working from the Home are non-resident as there is only accommodation for 12 nurses, three maids and a Warden Housekeeper.

The district room, lecture room and offices for the Superintendent and assistants are all in the main Home.

During lecture blocks, additional staff are seconded to the Home if necessary. There are three lecture blocks a year, the average number of students is twelve, but there have been as many as 17 and as few as six. The lecture block is arranged by the Superintendent with co-operation from the Medical Officer of Health and his staff.

Unless there is a vacancy for a Queen's Nurse at the Training Home, the staff students on completion of their training, are transferred to one of the Branch Homes or to a single district wherever there is a vacancy.

Transport :—The Association owns 18 cars and 24 bicycles. Fourteen nurses have their own cars and 21 nurses their own bicycles ; two nurses have Vespa's (motor cycles) and the remaining staff walk. An Area

Superintendent is responsible to the Superintendent for allocating the cars and seeing that they are serviced regularly and the mileage records checked.

Refresher Courses :—These are held at the University every other year and are arranged by the Senior Superintendent with the help of the Medical Officer of Health. Lectures are held during the afternoons for one week. All members of the staff are expected to attend. Certain subjects are chosen by the nurses themselves, others are designed to keep the staff informed of modern development.

Co-operation :—There is close co-operation between the Department of Public Health, hospitals, general medical practitioners and the nursing service.

Hospital almoners contact the Superintendent by telephone or letter about cases discharged from hospital needing continued nursing care. Ward sisters at the Bristol Royal Infirmary also send reports on discharged patients to the Superintendent. Hospitals are informed of the facilities provided by the District Nursing Service by one of the staff giving periodic lectures. District nurses do not visit the hospitals personally. There is, as yet, no organised scheme for the home nursing care of patients discharged from hospital earlier than usual, *i.e.*, in an endeavour to save hospital beds.

General medical practitioners enlist help by telephone or by personal contact. Co-operation between nurse and doctor in the management of a case is achieved by "message form" for the most part, but personal contact is made when the treatment is changed or if any difficulties arise.

Nursing Equipment Store.

After three years a building was erected as a central nursing equipment store, the store was completed and the full scheme operated as from the 1st April, 1952. This relieved the Bristol District Nursing Association which had been implementing a loan scheme on an agency basis as well as providing the home nursing service for the authority.

For the convenience of patients, stocks of smaller articles are being maintained at ten district clinics and health centres and at five hostels of the district nurses, for issuing on the certification of a doctor, nurse or midwife. Direct application is made to the storekeeper at the central store for larger appliances such as wheel-chairs or commodes.

Deposits based on 10% of the cost of articles are payable and are re-imburseable upon the return of the article in good condition but, in cases of need, the deposit may be reduced or waived at the discretion of the Medical Officer of Health.

No. of loans at 31st Dec. 1951	...	...	868
No. of loans at 31st Dec. 1952	...	...	1,435

Since assuming direct control of the scheme for the loan of nursing equipment, the total loans from April to December 1952 were 2,913.

9. VACCINATION AND IMMUNISATION.

(a) *Diphtheria immunisation.*

This is undertaken at all clinics throughout the city. In addition, all general practitioners are given the opportunity, and most avail themselves of the offer, to carry out immunisation on behalf of the Local Health Authority. The prophylactic used is P.T.A.P. It is estimated that approximately 65% of the child population has been immunised against diphtheria.

All children immunised in infancy are advised by letter to have a "booster" injection at $4\frac{1}{2}$ years prior to starting school.

(b) *Vaccination.*

The Local Health Authority do not provide vaccination facilities in any of their clinics. This service is provided by general practitioners on behalf of the city. Since the Vaccination Acts were repealed, only 10—15% of children under one year are being vaccinated annually in this city. Concern is felt at this poor demand for infant vaccination. It is considered that the position might improve if :—

- (i) Vaccination was undertaken in the infant welfare clinics—this is opposed by the majority of general practitioners.
- (ii) General practitioners would set aside a specified time for infant vaccination. Arrangements could then be made for lymph to be issued, and parents informed of the day on which to attend.

Proposals on these lines have been submitted to the Local Executive Council for consideration.

(c) *Whooping cough immunisation.*

This is not undertaken, except in residential nurseries where all children are immunised. However, plans are being made to introduce a comprehensive scheme for the city in 1953.

(See Table—Page 18).

DIPHTHERIA IMMUNISATION AND VACCINATION

NUMBER OF CHILDREN WHO COMPLETED A FULL COURSE OF
PRIMARY IMMUNISATION IN THE AUTHORITY'S AREA (including
temporary residents) IN THE SIX-MONTHS PERIOD INDICATED.

	Age at date of final injection		Total
	Under 5	5 to 15	
Six Months ended 31st December, 1948 ...	3,390	147	3,537
Six Months ended 30th June, 1949 ...	2,667	601	3,268
Six Months ended 31st December, 1949 ...	2,576	268	2,844
Six Months ended 30th June, 1950 ...	2,525	187	2,712
Six Months ended 31st December, 1950 ...	1,710	95	1,805
Six Months ended 30th June, 1951 ...	2,425	529	2,954
Six Months ended 31st December, 1951 ...	2,573	345	2,918
Six Months ended 30th June, 1952 ...	2,194	114	2,308
Six Months ended 31st December, 1952 ...	2,345	85	2,430

NUMBER OF PERSONS VACCINATED (or re-vaccinated).

	Age at 31st Dec., 1951 <i>i.e.</i> , born in years ...	Under 1 year 1951	1 to 2 years 1950	2 to 4 years 1947-49	5 to 14 years 1937-46	15 years or over before 1937	Total
1951							
	Number vaccinated...	730	715	229	254	473	2,401
	Number re-vaccinated	88	70	41	104	1,414	1,717
1952	Age at 31st Dec., 1952 <i>i.e.</i> , born in years ...	Under 1 year 1952	1 to 2 years 1951	2 to 4 years 1948-50	5 to 14 years 1938-47	15 years or over before 1938	Total
	Number vaccinated...	740	648	168	154	373	2,083
	Number re-vaccinated	87	90	45	96	831	1,149

10. AMBULANCE SERVICE.

Until April 1952, the day-to-day operation of the ambulance service was carried out as a combined service by the Fire Brigade, the policy decisions remaining with the Local Health Authority. Since that date it has been operated as a separate service within the Health Department, under the direction of the Medical Officer of Health. The number of vehicles operated directly by the service include 30 ambulances and 15 sitting-case vehicles. The staff is comprised of a Chief Ambulance Officer; a deputy; three station officers, who are immediately in charge of the three ambulance depots; two control room officers in charge of eight control room staff; and 90 driver-attendants. The W.V.S., the local taxi services and, in emergency, the St. John and City Marine Ambulances are used to assist in carrying out the duties of the Local Health Authority. By arrangement with the respective County Councils, the service covers parts of North Somerset and South Gloucestershire, the cost of transporting cases on their behalf being recharged to the respective Local Health Authority.

All driver-attendants are fully qualified in first-aid and through refresher courses keep abreast with their subject. The control room is situated at the Central Health Clinic. The Health Committee have agreed to a policy of radio-communications and by the end of 1952, five vehicles (four ambulances and one car) had been equipped with wireless, the remainder to be fully equipped during 1953.

The number of requests for transport has steadily and continuously increased and it has become necessary to limit the number of sources from which requests can be made, at the same time ensuring that all cases are based on medical need. This has been achieved by :—

- (a) Instituting a Central Control through which *all* requests for transport by ambulance or car are received.
- (b) Arranging with the larger hospital groups to employ inside the group an ambulance liaison or group transport officer.
- (c) Ensuring that requests for ambulance service transport are made only through that officer, who certifies that the medical need has been established and arranges appointment times so that as many patients as possible are conveyed from the same district in the city at the same time.
- (d) These arrangements are made by telephone or by means of a printed form on which is recorded the names and addresses of patients, appointment dates and times, and a certification of the need for free transport. The forms are used mainly for advance notice of treatment cases and posted to ambulance service headquarters. They assist greatly in planning journeys and have effected an enormous saving in telephone calls and separate recording of requests.

No special arrangements are in force for general practitioners as it is felt that closer control is achieved by personal contact with them. Printed cards etc., requesting transport, are not issued for their use.

Every effort is made to prevent abuse of the service, and by means of daily, weekly and monthly summaries, every possible step is taken to show hospitals how much transport can be wasted through :—

- (i) Wrong dates and times of appointments.
- (ii) Wrong addresses.

- (iii) No notification of cessation of treatment.
- (iv) Patients not being ready when ambulance or car has called for them.
- (v) Lack of foresight in arranging appointments.

A considerable number of patients is brought to Bristol from neighbouring counties to receive specialist treatment. After treatment many have to be taken back to their home addresses by ambulance service. Close liaison with adjoining counties and daily notification of vehicles coming to Bristol has made it possible to send hundreds of patients back to their homes in vehicles belonging to their own authority, thereby saving the use of Bristol vehicles and the need for charging under Section 24 of the National Health Service (Amendment) Act, 1949.

II. PREVENTION, CARE AND AFTER-CARE.

(A) TUBERCULOSIS.

Prior to the introduction of the National Health Service Act, 1946, the tuberculosis service as a whole (diagnosis, treatment, care and after-care) was the responsibility of the Local Authority. The Act of 1946 divided administration between the Local Health Authority, who are responsible for prevention, care and after-care, and the Regional Hospital Boards and Hospital Management Committees who are responsible for diagnosis and treatment. This division of authority necessitated the re-organisation of the tuberculosis service.

The new arrangements, duly approved by the Ministry, provide for :—

- (i) Appointment of a full-time Medical Officer for the co-ordination of the Local Authority's work and for liaison with all departments—governmental and local, and voluntary organisations dealing with tuberculosis. In addition, he is expected to concentrate on the epidemiological aspects of tuberculosis.
- (ii) Appointment of an assistant executive or lay administrative officer and the necessary welfare and clerical staffs (appointments made).
- (iii) Appointment of seven tuberculosis visitors responsible for clinic work and home visiting (appointments made).

A full account of these new arrangements was given in my Annual Report for 1951.

Co-ordination and Co-operation.

The co-ordination of the work and co-operation with all sections and bodies dealing with tuberculosis is of first importance if a really satisfactory service is to operate, and the efforts made to achieve this are briefly as follows :—

- (i) *Co-ordination of the work of the chest physicians (diagnostic and treatment service) and the Local Health Authority (prevention, care and after-care).*

The main chest clinic sessions are held at the Central Health Clinic where all tuberculosis medical records are housed, as are the Medical Officer of Health's notification and welfare records. In this respect, therefore, the old idea of the tuberculosis dispensary service, as conceived by Sir Robert Phillip, is still retained in Bristol.

There is a weekly interchange of information between the Medical Officer of Health and chest physician relating to new cases of tuberculosis

coming to notice. This avoids delay in notification and in dealing with welfare matters such as maintenance allowances, free milk and assistance in other ways.

The duties of the tuberculosis visitors are divided between the domiciliary visiting of patients and attendance at the clinic sessions held at the Central Health Clinic and Southmead Hospital Chest Clinic.

The district health visitors co-operate by notifying changes of address and sending requests for contact examinations and B.C.G. vaccination.

(ii) *School Medical Service.*

Assistant Medical Officers undertake the examination of contacts up to school leaving age and also work with the chest physicians at B.C.G. vaccination sessions.

(iii) *Co-operation with Hospitals.*

Although the Public Health (Tuberculosis) Regulations 1952 do not place any statutory obligation upon hospital authorities to notify the Medical Officer of Health of admissions, discharges, or transfers of patients suffering from tuberculosis, the Ministry of Health has asked Hospital Boards and Committees to ensure that this information is sent by the hospital concerned to the Medical Officer of Health. No difficulty has been experienced in gaining any necessary information in Bristol and in this respect co-operation is very good.

The T.B. Welfare Officers visit hospitals and sanatoria where there is no almoner on the staff of the hospital. At other hospitals, co-operation is achieved through the almoners who are kept abreast of developments of the welfare arrangements for patients and dependants, and who refer to the Welfare Officers requests for assistance and advice.

(iv) *General Medical Practitioners.*

General practitioners are kept informed of changes or developments in the T.B. service.

(v) *Voluntary Care Committee.*

This Committee undertakes an important part of the Health Committee's after-care responsibilities for the tuberculous patient.

The lay Executive Officer acts as Honorary Secretary of the Voluntary Care Committee, and the chest physicians, tuberculosis visitors and welfare officers actively engage in the work of the Committee.

(vi) *Housing Department.*

Applications for rehousing from tuberculous families receive the support of the Medical Officer of Health after consideration of the medical and environmental aspects of the case.

The Housing Department advise the Medical Officer of Health of the movement of tenants of Council houses and flats, so that disinfection of premises vacated by tuberculous families may be carried out.

(vii) *Governmental Departments.*

Ministry of Labour (Rehabilitation) :—Co-operation with the Ministry of Labour was established in 1944 when the Disabled Persons (Employment) Act came into operation. To guide the Ministry in placing tuberculous persons in suitable employment, or in arranging for their re-training, patients are interviewed by the Welfare Officers and detailed

medical reports by the chest physicians forwarded to the appropriate local officer of the Ministry. However, arrangements are being made for fortnightly or monthly meetings of Ministry of Labour Resettlement Officers, chest physicians and Welfare Officers at which patients can be interviewed with a view to more suitable placing.

Co-operation is also maintained with the management and medical officer of the special Remploy Factory at Southmead, employing solely tuberculous persons.

National Assistance Board :—Prompt payment of tuberculosis allowances depends upon initial action being taken by the Welfare Officers. Eligible patients are issued with application forms and advice to apply immediately to the Board—the necessary medical certification being forwarded to them.

The National Assistance Board officers are conversant with the general welfare arrangements and very frequently refer cases to the Welfare Officers where assistance or advice of a kind not provided by the Board is considered necessary.

Ministry of Pensions :—The Ministry of Pensions is represented on the Voluntary Care Committee and liaison with the Ministry's Welfare Officers is maintained.

Voluntary Bodies :—The following principal voluntary organisations are aware of the welfare facilities for tuberculous persons and are encouraged to refer to the Medical Officer of Health any cases of tuberculosis who need assistance :—

The Council of Social Service ;
The Council for the Disabled ;
The British Red Cross Society ;
Bristol Hospital Fund ;
Bristol Crippled Children's Society.

Notification and Prevention.

(1) Notification.

The Public Health (Tuberculosis) Regulations 1952 do not require a register to be kept of notified cases of tuberculosis, but obviously an up-to-date register must be maintained by the Medical Officer of Health if he is to carry out his responsibilities under Section 28 of the National Health Service Act. This is done.

(2) Prevention.

(a) Contact examinations.

Inadequate chest clinic accommodation and x-ray facilities has resulted in the examination of adult contacts being largely dependant upon the Mass Radiography Service. This is unsatisfactory owing to the length of time occurring between the date of notification of the case and the date contacts are x-rayed. This also applies in a considerable degree to the mass x-ray examination of contacts of old cases requesting "check-up."

Improvement would result from a controlled system of contact examinations with fixed contact sessions, including evening sessions for

contacts at work, and the follow-up of those failing to present themselves for examination. A re-organisation of the x-ray services in the Central Health Clinic may enable us to remedy these defects.

(b) *B.C.G. Vaccination.*

Vaccination of contacts of tuberculous persons commenced in May, 1952 ; at present it is limited to children up to 16 years of age.

Monthly vaccination sessions are held under the supervision of the consulting chest physicians and with the help of an assistant medical officer.

To the end of the year, 641 children had been seen of whom 159 were positive. Of the 482 negative reactors, 317 had been successfully vaccinated by the 31st December, 1952.

(c) Advice is given by tuberculosis visitors to patients at home upon the precautions to be taken to prevent the spread of infection, such as sleeping arrangements, ventilation, disposal of sputum etc.

(d) Sputum cups and disinfectants are issued to cases being treated at home.

(e) *Disinfection.*

Room and bedding upon admission of patient to hospital. Room and bedding upon death of patient. House or room vacated by tuberculous person before re-let to another tenant. Housing Department co-operate by notifying Medical Officer of Health of removal of known T.B. cases and of termination of tenancy by Council house tenants.

(f) T.B. Voluntary Care Committee supply bedsteads and bedding to enable patients to have separate sleeping accommodation where the financial circumstances do not permit the patient to purchase.

(g) Accommodation in residential nurseries or boarding out in certain cases of children from tuberculous homes, is arranged in co-operation with the Children's Department.

(h) Routine x-ray examinations are carried out of new school teachers and teachers in training, and of nursing, welfare and clerical staffs whose work brings them into contact with tuberculous persons and of nurses in residential and day nurseries.

(i) Examination is carried out by Mass X-ray Unit of contacts at large common lodging houses in the city.

Care and After-Care.

The Welfare Officers (one senior and two assistants) are present at all chest clinic sessions held at the Central Health Clinic and Southmead Hospital Clinic.

Regular visits are made by the Welfare Officers to hospitals and sanatoria where there is no almoner on the staff to interview patients under treatment and to give help and advice upon the many and various problems arising. Hospitals with an almoner on the staff are not visited regularly, but the Welfare Officers visit upon request by a patient or the almoner.

The welfare services available to patients and dependants are widely known, printed leaflets (8) being distributed to patients, hospitals and organisations dealing with tuberculous persons. A welfare officer is always available at the Central Clinic to attend to the many enquiries, both personal and by telephone, made by or on behalf of patients.

(B) SUMMARY OF CARE AND AFTER-CARE SERVICES EXISTING AT THE END OF 1952

(1) Directly by the Local Health Authority :—

- (a) *Tuberculosis maintenance allowance* :—Payable by the National Assistance Board upon medical certification from the chest clinic.
- (b) *Extra nourishment* : (free milk)—By the Local Health Authority on medical recommendation and subject to an income scale.
- (c) *Home nursing* :—By arrangement with District Nursing Service. Free service.
- (d) *Home helps* :—By the Local Health Authority's special panel of home helps. Payment according to means.
- (e) *Garden shelters* :—Loaned to patients with suitable gardens and considered medically suitable to use a shelter.
- (f) *Boarding out of children from tuberculous families* :—Arranged through the Children's Officer. Payment by parents according to means. The Local Health Authority now have power, under amended proposals, to arrange boarding out of suitable cases and to provide preventoria. No action has yet been taken under this special power.
- (g) *Re-housing* :—Additional points recommended for tuberculous applicants by Medical Officer of Health after consideration of all aspects—medical and social—of the family.
- (h) *Rehabilitation* :—By co-operation with the Ministry of Labour who endeavour to place patients in suitable work according to physical capacity or arrange courses of training.

(2) By the Voluntary Care Committee on behalf of the Local Health Authority.

- (i) *Practical help* for patients—bedding, clothing and footwear. Cash grants for various purposes.
- (ii) *Occupational Therapy classes* for patients pending return to employment and visits at home to bed cases by occupational therapist.
- (iii) *Loan of equipment*—Bed pans, air rings, bed rests, commodes, invalid chairs etc. This is supplementary to the Local Health Authority's scheme for providing nursing equipment under Section 28.
- (iv) *Provision of employment*—Four kiosks operated at hospitals for sale of tobacco, confectionery etc. giving full-time light work to seven patients.
- (v) *Social activities*—Social club for patients and friends, Christmas parties for children etc.

(C) VENEREAL DISEASE 1952.

The welfare officers of the department (one male, one female) are located at the Venereal Disease Clinic, Guardian House, Maudlin Street and are thus enabled to work in close co-operation with the venereal disease specialist. A short description of their work during 1952 follows.

Contact Tracing. Despite a drop in the number of patients suffering from communicable stages of venereal disease, contact tracing has again

formed a major part of the social work. Interrogation of patients; exploration to locate and identify alleged sources of infection and influence them to attend the clinic for investigation; and re-interrogation of original patients have accounted for many hours of work.

There has been a slight increase this year in the number of both male and female contacts persuaded to attend clinic and this is the more encouraging in view of the energy and initiative involved in tracing the more difficult cases. Night patrols are carried out from time to time by officers.

Excellent liaison has been maintained with many voluntary and official bodies, including the Services Medical Department of the United States of America who, in correspondence with the Director of the Clinic following information given concerning contacts to infection in the U.S. Forces, writes :—

“ This type of information is greatly appreciated by this office and it is hoped that this type of Venereal Disease Contact Reporting will continue.”

It should be emphasised again that the statistical analysis (see Statistics section) of visits and follow-up figures does not present a complete picture as numerous complicated enquiries, impossible to show statistically, are frequently made.

Interviews in Clinics and Hospitals. This section forms an integral part of the clinic set up and provides the Social Workers with the comprehensive background of home and family conditions vitally necessary in advising and assisting the patients concerning their problems. Marital and domestic upheavals are unfortunately inevitable in a number of cases, and difficulties arising from ignorance or distorted ideas of the possibilities of the disease can often be smoothed out by full, patient and tactful explanation.

Employment and Rehabilitation. Employment was found for 26 patients, and 16 were introduced to a suitable club or organisation. While some difficulties were met because of a reduced number of vacancies available, successful efforts were made to secure suitable employment, and permanent work enabled many of our patients to make a “ fresh start.” Direct contact with the management of various firms proved most helpful to this end.

Seamen. Prompt investigation after confirmation of diagnosis is essential if local sources of, or subsequent contacts to, infection are to be found. Information is forwarded to the appropriate Authority of possible traceable sources of infection in other ports of Great Britain or abroad, while the local contact is followed up by the Welfare Officers. Acknowledgment is made of co-operation of Shipping Agents and others in aiding seamen to attend clinics, especially when ships are in port only for short periods.

Younger Age Groups. Although a smaller number of “teen-agers” were registered during the past year, efforts were continued, in co-operation with parents, Youth Organisations and other social bodies to direct the energies of these young people into worth-while channels.

V.D. Voluntary Care Committee. During the year this Committee gave financial assistance amounting to £1. 0s. 6d. to necessitous cases and at Christmas donated a sum of £13. 10s. 0d. for the provision of Christmas gifts and party for the children. The generosity of the Care Committee has made our work much easier in the occasional difficult cases.

Voluntary Bodies. During the year 589 consultations took place with various Voluntary Bodies enabling many patients to be assisted in a number of ways, e.g. periods of convalescence, accommodation, financial assistance, clothing, legal advice etc.

Lectures. During 1952 14 lectures or talks were given to various Organisations, Pupil Health Visitors and Student Nurses.

12. DOMESTIC HELP.

At present there are 344 home helps employed by the Health Department and of these 23 work full-time, i.e., 8 a.m. to 5 p.m. (less one hour taken during the day for meals) and 8 a.m. to 12 noon on Saturdays ; 295 work on an hourly basis for varying periods each week and 26 are employed on tuberculosis control work where the hours vary with the requirements of the patients.

The full-time home helps are based on the five main health clinics and when not engaged on a case, which happens occasionally, they work at the clinics and day nurseries. They are employed mainly on home confinement cases. In these cases the home help stays in the home 14 days but this period is extended if necessary. Home confinement cases are the only ones booked and guaranteed. The full-time helps receive a guaranteed weekly wage based on the awards of the National Joint Council for Local Authorities Manual Workers. They get 15 working days' holiday with pay.

The workers on an hourly basis are paid a pro rata rate according to the number of hours worked. Those working with tuberculous patients receive a plus rate of 6½d. and they are also paid for travelling time between cases.

Many applications for home help come direct from medical practitioners, midwives, almoners, health visitors and district nurses. When people apply on their own account or through relations or friends, confirmation of the illness is always obtained from the doctor in attendance. All applicants are visited in their homes by the organiser or deputy organiser before help is given, to ascertain whether there are relatives able to help or to assess the number of hours required and the duration of the help to be given. Where the patient is elderly an application form is filled in during this initial visit or, in emergency cases, the form is left for the husband to complete.

Two case workers visit the patients periodically to see that the home helps are attending to time and working satisfactorily and also, with the aged, to see whether the patient's condition has deteriorated or improved so that the hours can be adjusted accordingly. All home helps are supplied with a weekly time sheet and the patients sign each day for the time worked. The completed time sheets are checked carefully before the home helps are paid.

Each patient is assessed for payment according to an assessment scale approved by the Health Committee, but an appeal against the assessment may be made, in writing, to the Assessment Committee who may reduce the charge where there are justifiable grounds, i.e. long term T.B. cases, twins, special diets and so on. Wages are verified through the employer who is asked for an average wage over the previous six weeks. If the case is a long term one, this is done every three months. Where the patient is elderly, pension books, National Assistance Board books and rent books are inspected. Each patient is supplied with a contribution card and payments may be made weekly at the health clinics or direct to the City Treasurer.

The organiser has excellent co-operation with the voluntary organisations in Bristol and the many officers of the different Corporation departments, the National Assistance Board, and the welfare officers of the various factories etc. in the city. Cases are often referred by the aforementioned who are able to supply particulars which save much time and trouble and, moreover, they can often help patients in need of bedding, clothing, extra allowances, sitters-in, holidays etc.

Home helps should also assist as social workers and health educators. Therefore, a scheme has been devised to provide them with basic information on health and social subjects. Lectures are given by members of the Health Department. They cover such subjects as feeding problems, food handling, care of the aged, care of babies, care of the toddler, the care of invalids and the tuberculous. A complete account of this new venture, which is proving highly satisfactory, has been given in the "Medical Officer." *

13. HEALTH EDUCATION.

A co-ordinating officer for health education (Personal Assistant to M.O.H.) has been employed in the Health Department since November 1949. Accounts of his work have appeared in previous annual reports. In general his aim has been twofold: to educate the natural educators and to educate the general public in health matters. In order to accomplish this task additional health education facilities have been provided.

A. Educating the educators.

(1) Refresher Courses.

A close liaison is maintained with the Preventive Medicine Department of the University and this is greatly helped by the fact that the Medical Officer of Health is also Professor of Preventive Medicine. Courses organised annually are :—

- (a) Health Visitors—one week's duration.
- (b) Mental Health Workers—one week's duration.
- (c) Sanitary Inspectors—three days' course.

The policy of the department is to concentrate on shorter local courses rather than longer and more expensive courses further afield which necessarily limits the number who can attend. Every effort is made to secure a high standard of instruction in all courses. In this way one-third of the health visitors (20); one-third of the sanitary inspectors (12); and three mental health officers are sent each year to courses organised jointly by the University and the City Health Department. In addition, two health visitors and two midwives are sent to national courses every year and from time to time the Central Council for Health Education holds short courses in the area, which are supported by the department.

(2) Lectures to other educators.

Medical students, doctors etc., are frequent visitors to the department and every effort is made to acquaint them with health education methods and media, and to demonstrate practical opportunities for such education which might occur.

Reference is made to a training course for home helps elsewhere in this report.*

* 8th November, 1952 (88, 216-217) "The Home Help as a Social Worker and Health Education." A short training course for Home Helps by Miss P. Walker (Home Help Organiser), and Mr. D. M. Evans, B.A. (Personal Assistant to M.O.H.).

B. General Public.

The general public are reached in a number of ways and examples only can be mentioned here :—

(1) Selected Groups.

Infant Welfare Centres :—Lectures and films are arranged at all clinics on subjects ranging from immunisation, prevention of accidents, sleep, the common cold, scarlet fever, behaviour problems, and so on, to practical garment making. Most of the lectures are given at infant welfare centres by health visitors and a panel of lecturers on a fee basis. About 200 such talks were given at infant welfare centres between September and December 1952 alone—and a far greater number over the full year.

Ante-natal Clinics :—Talks and demonstrations on breast feeding; the story of birth; preparations for the new arrival; and relaxation are given in a systematic way at ante-natal clinics by the midwives and health visitors. Relaxation classes are run by a physiotherapist at a number of centres and use is made of film strips and the birth atlas as visual aids.

Parent Teachers' Associations :—Lectures are given to Parent teachers' associations by the school medical officers and by school nurses. Topics such as "Your Children's Play," "Sleep," "Walking," and "Vaccination" are covered with the aid of films.

(2) Selected Topics.

Clean Food :—Frequent talks are given by sanitary inspectors to such organisations as the townswomen's guilds, parent teachers' associations, Toc H and so on, on the subject of clean food, and all requests for lectures are met.

Selected groups such as food handlers and canteen workers are reached by running special courses in conjunction with St. John Ambulance Association and other bodies. Use is made of the three clean food film strips of the Central Council for health Education and the film "Another Case of Poisoning" of which the department now possesses a copy.

(3) Health Education Facilities.

(a) Visual Aids.

Films :—The disbandment of the Central Office of Information S.W. Regional Film Unit and Library in February 1952 was a great blow to the use of films by the department for teaching purposes. During 1951 some 300 shows were given on behalf of the department, so that the loss left a considerable gap.

Some effort was made to repair this deficiency by obtaining consent of the Health Committee to purchase a film projector (G.B. Bell and Howell 620) and in training seven of the clerical staff as part-time projectionists. Some 80 film showings at infant welfare clinics, to parent teachers' associations, St. John's Ambulance Clean Food courses and to outside bodies of a voluntary nature, have been arranged for the first three months of 1953.

Film Strips :—A comprehensive film strip library has been formed during the past three years, topics ranging from :—First Aid, Clean Food, Anatomy and Physiology, Water, Milk, Atmospheric Pollution,

Problem Families, Breast Feeding, Home Accidents, Flies, Lice, Antenatal Exercises, Nappie Changing and other subjects can now be covered by a health visitor, sanitary inspector, midwife, doctor, nutritionist or others who have to give lectures from time to time.

Charts, slides and flannelgraphs are also used as visual aids as occasion demands.

(b) *Health Education Lecture Room.*

As mentioned in last year's annual report, the equipping of a large room at the Central Clinic as a health education room has greatly facilitated the continuous process of educating the educators and in reaching selected groups such as food handlers, canteen workers, women's guilds, and students, for instruction.

C. Health Projects—Cancer Education.

Plans were made during the year for a cancer education scheme and liaison has been continuously maintained with the Cancer Bureau of the S.W. Regional Board and the Bristol Local Medical Committee. The publication of the pamphlet "Cancer in Bristol" sets the limits of the department's scheme and gives some vital data in the formation of an informed opinion on the accessible cancers in particular. The leaflet "Cancer can be Cured" gives information on these cancers for distribution by way of health workers but not indiscriminately. Both these publications are published elsewhere in this report.*

Early in 1953, a meeting is to be held at the Royal Fort, University of Bristol, at which medical practitioners in Bristol and adjacent areas are to be addressed by Mr. Reginald Vick, O.B.E., M.Chir., F.R.C.S. (consulting surgeon to St. Bartholomew's Hospital, London, and Director of the Cancer Records Bureau, S.W. Regional Hospital Board). This meeting, it is hoped, will extend knowledge with regard to recent developments, particularly with regard to early diagnosis and prognosis.

Soon afterwards it is intended to arrange a similar meeting for district nurses, health visitors, midwives and hospital nurses and for persons whose social responsibilities extend to cancer sufferers—members of relevant medico-social and political organisations for example.

In this way it is hoped to reach a wide area of the most influential educators who can be most active in the formation of a balanced public opinion and in the propagation of necessary information.

14. MENTAL HEALTH.

(1) Administration.

(a) *Committee* :—The City Council, as the Local Health Authority, has delegated the statutory functions under the enactments relating to mental health and mental deficiency to the Health Committee which operates routine supervision through its Mental Health Sub-Committee.

The service is based at Marlborough House, Marlborough Hill, which is centrally situated in the city, and here too, the administrative section is located. In addition, there is at this address a Mental Health Advisory Centre, an Occupation Centre and an Adult Training Centre.

(b) *Medical and Administrative Staff* :—The administration of the services is carried out by officers specially designated for this purpose and approved by the Minister of Health.

* See "Cancer Education" in Section E of this report.

Medical Staff.

- (i) *Director* :—On the staff of the Medical Officer of Health a Chief Assistant Medical Officer undertakes the medical direction of the mental health service. This post was vacant throughout most of 1952 but has recently been filled.
- (ii) *Assistants*.
- a. *Mental Deficiency Acts* :—Medical practitioners who are trained and approved for the examination of mental defectives for ascertainment and certification under the Mental Deficiency Acts, are employed. These medical practitioners are full-time officers of the City Council, and such other eligible practitioners as are willing to undertake the work are employed from time to time.
- b. *Lunacy and Mental Treatment Acts* :—Certifying practitioners for the purposes of the Lunacy and Mental Treatment Acts are employed. They are either full-time officers of the City Council, or other eligible practitioners employed as required on a case or sessional basis.

Consultant :—The services of a consultant psychiatrist are available for the examination of difficult and obscure cases.

Non-Medical Staff.

	<i>Establishment</i>	<i>Posts filled</i>
(i) <i>Administrative and Supervisory :—</i>		
Supervising Officer (duly authorised for the purposes of the Mental Deficiency Acts and the Lunacy and Mental Treatment Acts) ...	1	1
Assistant Supervising Officers (similarly authorised)	6	6
Visitors	2	2
Clerks	6	5
(ii) <i>Professional and Technical :—</i>		
Psychologist (part-time)	1	*
Nursing Sister (part-time)	1	1
Psychiatric Social Worker	1	—
Speech Therapist (part-time)	1	1
Teacher of the Deaf (part-time)	1	—
Occupation Centre Supervisor	1	—
Occupation Centre Assistants	5	5
“ “ “ (part-time)	1	1
Industrial Centre Senior Instructor	1	1
“ “ Junior Instructors	2	2
Handyman Caretaker (resident)	1	1
Guides (part-time)	5	5
Domestic helpers (part-time)	2	2
Total Non-Medical Staff of whom 12 are part-time	38	33

* Post not filled at present. Services of psychologist from Child Guidance Clinic of Education Committee are used if necessity arises.

(c) *Co-ordination and co-operation with other bodies.*

There continues to be a happy relationship with the Regional Hospital Boards, Hospital Management Committees and other Local Health Authorities. The previous Medical Director was a member of two Hospital Management Committees, one dealing with mental defectives, the other with mental diseases. In addition, the supervisory work for patients on licence within the area of the Local Health Authority is carried out by the Local Health Authority on behalf of the Hospital Management Committees. An extension of this supervisory work is anticipated by a joint effort between the Regional Hospital Board, the Hospital Management Committees, Local Health Authority and the Ministry of Labour for the provision of training for adult mental defectives in the Ministry of Labour Government Training Centre and Industrial Rehabilitation Unit at Vassall Road, Fishponds, Bristol.

Care of mental defectives on licence :—Difficulty is being experienced, however, in finding suitable persons willing to undertake the care of mental defectives on licence. Hostel accommodation for this purpose provided by the Local Health Authority would be of real value and would enable the system of personal licence or guardianship to be extended.

Lack of accommodation :—Mental hospitals in the Bristol area still remain crowded and so great has been the demand for admission of Bristol cases that it was found necessary to take some patients to mental hospitals in other parts of the South Western region some considerable distance from their homes. This is considered by the Local Health Authority not to be conducive to the patients' well-being, and inconvenient to parents and relatives. When this was brought to their notice, the South Western Regional Hospital Board was most co-operative and all such patients have now been transferred back to local mental hospitals. Whilst the acute shortage of beds in mental deficiency institutions has still continued, the Board has been most helpful also in allocating vacancies, and no urgent case of mental defect has been refused admission.

(d) *Voluntary associations.*

No statutory duties are being performed by voluntary associations as agents of the Local Health Authority, but one is very conscious of the valuable assistance afforded in various ways by such organisations as the Bristol Council of Social Service, the Crippled Children's Society, the Guild of the Handicapped, and the Institutes for the Blind, Deaf and Dumb.

(e) *Training of staff.*

The members of the staff are all qualified, either academically or by experience, to partake in the work and opportunity is taken at frequent intervals to improve and augment their experience by instruction and refresher courses. Senior officers of the department have attended conferences and courses of instruction during the year.

Instructional staff :—Members of the instructional staff have been trained in general handicrafts, and one senior instructor is at present seconded to the National Association of Mental Health to obtain the Diploma for Occupation Centre Supervisors.

Weekly lectures :—A course of lectures on mental illness and the general administration of statutory requirements, has been given to the

administrative staff at Marlborough House. Lectures on this service have been given at the University of Bristol to medical students, health visitors, nurses and social science students. It is hoped that the students so taught have been made aware of the scope and extent of the work of the department and that, in addition, foundations of future co-operation with the department have been laid.

Overseas visitors :—By arrangement with the British Council and the Ministry of Health, many visitors from overseas have come to observe the work of the department.

Annual refresher course :—Arrangements have been completed with the University of Bristol for the holding of an annual refresher course for mental welfare officers and representatives from Local Health Authorities throughout the South Western region are invited to attend.

Training courses for psychiatric social workers :—The possibilities of starting training courses for psychiatric social workers and occupation centre supervisors are being explored with the University.

(2) Account of work undertaken in the community.

(a) Under Section 28.

Regarding the prevention of mental illness, the Local Health Authority has continued to carry out its duties under Section 28 of the National Health Service Act by the encouragement of lectures, discussions and exhibitions. Many lectures have been given by medical and administrative officers of the department in an attempt to keep before the general public the benefits of such a service, and in an endeavour to break down the age-old prejudice associated with mental illness.

Advisory service :—The Mental Health Advisory Service is also becoming widely known throughout the city. Staffed by qualified mental health workers, this service is made available to any person, without introduction or appointment, who may be in need of help and advice on mental health matters. Cases are also referred to the Mental Health Advisory Service by health visitors, almoners, probation officers, voluntary association workers, and welfare officers of the Ministries of Labour and Pensions. If a person is unable to attend the Centre, a mental health worker visits the home.

Care :—The care of any person in the community who suffers from mental illness or mental defectiveness, is undertaken statutorily or by arrangement with parents, doctors or Hospital Management Committees.

After-care :—The provision of care and after-care is a growing commitment and of great importance, bearing in mind the present shortage of mental hospital and mental deficiency institution accommodation.

For whom provided :—A friendly form of oversight is provided for mental defectives discharged from Order of the Mental Deficiency Acts, borderline mental defectives, and for persons discharged from H.M. Forces on psychotic grounds ; also for epileptics suffering from anti-social traits.

Co-operation with hospital workers :—Close co-operation is achieved between the mental health services and the Mental Hospital's departments of social work in the after-care of psychotic and psychoneurotic patients

on trial or discharged from the Mental Hospitals. Such work demands the special skill and technique of trained and experienced workers. As is the experience of other Local Health Authorities, it has been found impossible to obtain qualified psychiatric social workers.

(b) Under the Lunacy and Mental Treatment Acts.

The responsibilities of the Local Health Authority under the provisions of the Lunacy and Mental Treatment and Mental Deficiency Acts, as amended by the National Health Service Act of 1946, are carried out by mental health officers duly authorised for the purpose.

Officers' duties :—It is their duty to take proceedings appropriate to the circumstances by obtaining the necessary initial care, and if needed the removal to hospital, of a person suffering from mental illness. In this work there must be co-operation between the duly authorised officers, general practitioners and the staffs of psychiatric clinics, to ensure the use of voluntary or temporary treatment wherever possible as an alternative to certification.

(c) Under the Mental Deficiency Acts (1913-1938).

(i) *Ascertainment* :—The number of ascertained mentally defective persons in Bristol on the register as subject to be dealt with is 1,814. This is equal to 4.09 per thousand of the city's estimated population. The majority of these are mental defectives referred by parents, guardians, doctors, or notified by the Education Authority as incapable of receiving education at school or as about to leave Special School for educationally sub-normal children at the age of 16 years.

Each case is carefully considered by the Mental Health Sub-Committee at its monthly meeting, and a course of action adopted which will be of the greatest benefit to the individual defective. This may take the form of supervision, guardianship, or institutional care and training.

Of the total mental defectives in the population, 66% are receiving domiciliary care.

Institution care :—This form of care is reserved for those who by reason of the nature of their disability and social circumstances, are unable to adjust themselves to normal communal life and are in need of care, supervision and control which cannot be provided at home.

Medical and dental attention :—The Local Health Authority is charged with the duty of securing the provision, under Part IV of the National Health Service Act, of personal medical and dental attention for the patient.

Supervision :—Persons found to be mentally defective, but who do not need institutional care or guardianship, are placed under supervision. The supervision of mental defectives is carried out by mental health workers by means of regular and periodic visits to the parents' home. Statutory visits have limitations but the aim is to ensure, as far as possible, that the parent or guardian provides adequate care and supervision.

(ii) *Guardianship* :—For those defectives whose needs cannot be adequately met by supervision, additional help is given by way of guardianship. Financial assistance is provided in appropriate cases by the National Assistance Board.

(iii) *Combined occupation and industrial centre* :—The most valuable addition to supervision and guardianship is the provision of occupation and industrial centre training. Such a combined centre has been established by the Local Health Authority, with a roll of 180 defectives of all ages.

The occupation centre is for ineducable defectives under the age of 16 years, and the industrial centre for those over 16 years who, by reason of mental defectiveness, are unable to obtain suitable employment. A wide variety of interesting subjects is provided to ensure that from an early age the defectives are fully occupied and trained to the fullest extent of their capabilities.

Centre accommodation :—This service is inadequately housed in overcrowded premises and the Committee has given serious consideration to this question. As a short-term plan, proposals have been made to provide temporary accommodation for an additional 90 places and it is expected that this work will commence in the near future. The long-term programme envisages a permanent establishment of a suitable character and on an ample scale.

STATISTICS

M.D. ACTS — 1913-1938

i. **Total ascertained Mental Defectives known to L.H.A. on 31.12.52.**

	<i>Male.</i>	<i>Female.</i>	<i>Total.</i>
In Institutions and on Licence	339	331	670
Under Guardianship	21	22	43
Under Supervision	466	410	876
Pending	6	9	15
Discharged from Order to friendly oversight	68	142	210
TOTALS ...	900	914	1,814

Rate per 1,000 population : 4.098

Not included :—

No of children who are educationally sub-normal — 674 (approx.)

ii. **Total ascertained persons during 1952 :—**

From following sources :—

	<i>Total.</i>	57/3	57/5
L.E.A.	46	(20	26)
General Practitioners	10		
Police Courts	6		
Others	22		
TOTAL ...	84		

Results :—

	<i>Total.</i>
To Institutions	10
„ Guardianship	—
„ Supervision	40
„ Supervision by other L.H.A.	—
Died	4
Readm. to Special Schools	1
Action not yet taken (school leavers)	6
„ „ „ „ (other than school leavers)	9
Found not to be M.D.	14
TOTAL ...	84

iii. **Total of Mental Defectives under L.H.A. on 31.12.52.**

	<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
Under Guardianship	21	22	43
Under Supervision	466	410	876
Pending (of these, awaiting admission to institutions)	6 (1)	9	15 (1)
TOTALS ...	493	441	934

iv. **Total Mental Defectives discharged from care during 1952.**

	<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
From Institutions { By auth. of Board of Control ...	15	20	35
{ By op. of law ...	2	2	4
From Guardianship { By auth. of Board of Control ...	6	12	18
{ By op. of law ...	—	—	—
From Supervision by L.H.A.	12	9	21
TOTALS ...	35	43	78

v. **Total Mental Defectives Died during 1952.**

	<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
Whilst in Institutions	3	5	8
Whilst under Guardianship	—	—	—
Whilst under Supervision	1	2	3
TOTALS ...	4	7	11

Lunacy and Mental Treatment Acts.

vi. **Removals during twelve months ending 31.12.52.**

	<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
Certified	61	110	171
Certified but removed to outside boundaries	7	9	16
Voluntary admissions	56	73	129
Temporary admissions	11	31	42
Removed but not certified :—			
No order made	41	44	85
Detained Sec. 21A (& 21)	41	74	115
Removed from Private to Public Hosp.	—	1	1
Private admissions	—	—	—
Urgency orders	1	2	3
Other than L.M./T. Acts	88	113	201
TOTALS ...	306	457	763

vii. Total No. of Bristol patients in Mental Hospitals on 31.12.52.

						<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
Certified	...	...	...	...	...	557	858	1,415
Voluntary	...	...	...	...	...	321	337	568
Temporary	...	...	...	...	...	10	30	40
				TOTALS	...	798	1,225	2,023
In Dundry Villas Neurosis Unit				...	...	22	23	45

viii. Social After-Care.**No. of persons receiving After-Care or friendly oversight by L.H.A. on 31.12.52.**

						<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
Discharged from Order (M.D. Acts)	...				...	68	142	210
Ex-Service persons for psychiatric after-care	...	...	...	...	...	28	—	28
				TOTALS	...	96	142	238

Maternity and Child Welfare—continued.

					1951	1952
(iii)	<i>Post-natal Clinics :—</i>					
	Central	...	...	...	1,018	1,050
	Bedminster	...	...	...	289	298
	Speedwell	...	...	...	378	353
	Southmead	...	...	...	592	664
	Portway	...	...	...	220	179
	Knowle	...	...	...	444	461
	Clifton	...	...	...	242	216
	Bristol South	...	...	...	314	303
	Verrier Road	...	...	...	237	232
	Frenchay	...	...	...	92	87
					3,826	3,843
	Average per session	...	...	...	10.0	9.4
	New Patients	...	...	...	2,379	2,411
(iv)	<i>Consultative Ante-natal Clinics :—</i>					
	Central	...	...	...	823	877
	Bedminster	...	...	...	479	515
	Speedwell	...	...	...	418	425
	Southmead	...	...	...	2,437	4,035
	Portway	...	...	...	227	258
	Knowle	...	...	...	473	521
	Bristol South	...	...	...	521	571
	Bristol North	...	...	...	1,043	1,431
	Verrier Road	...	...	...	668	1,100
	Clifton Health Centre	...	...	...	339	310
	Inns Court Road and William Budd	...	...	...	370	635
					7,798	10,678
	Average per session	...	...	...	15.4	19.2
	New Patients	...	...	...	4,285	4,437
(v)	<i>Municipal Infant Welfare Centres :—</i>					
	<i>Mothers :—</i>					
	Central	...	...	...	5,185	4,639
	Speedwell	...	...	...	5,988	5,984
	Southmead	...	...	...	4,766	4,835
	Portway	...	...	...	3,115	2,679
	Knowle West	...	...	...	6,549	6,351
	South Bristol	...	...	...	7,445	7,642
	Bedminster	...	...	...	4,182	3,832
	Barton Hill	...	...	...	1,790	1,606
	Headley Park	...	...	...	1,140	906
	Moorfields	...	...	...	2,294	2,133
	Brislington (Salisbury Road)	...	...	...	1,038	804
	Clifton	...	...	...	3,547	3,282
	North Bristol	...	...	...	5,156	4,560
	Brynland Avenue	...	...	...	5,073	5,149
	Avonmouth	...	...	...	1,096	1,036
	Brislington (Water Lane)	...	...	...	3,009	2,638
	Rochester Road	...	...	...	1,080	1,047
	Frenchay	...	...	...	1,037	1,092
	Bedminster Down	...	...	...	1,699	1,952
	Durdham Down	...	...	...	5,049	4,895
	Eastville	...	...	...	2,034	1,708
	Hotwells	...	...	...	1,686	1,772
	Newry Walk	...	...	...	3,365	1,420
	Redcliffe	...	...	...	1,390	1,488
	Sea Mills	...	...	...	1,746	1,262

Maternity and Child Welfare—continued.

	1951	1952
<i>Municipal Infant Welfare Centres (contd.)—</i>		
Westbury	2,177	2,065
Dovercourt Road and Lockleaze ...	2,785	2,970
Fishponds (Guinea Lane)	2,057	1,652
Verrier Road	1,497	1,660
Inns Court Road	1,609	2,971
Ullswater Road	1,815	1,741
Lawrence Weston	2,077	2,076
Bishopsworth	592	695
Ashton Vale	—	113
Henbury	—	191
	95,067	90,846
Average attendance per session ...	29.0	27.1
<i>Children under 1 year :—</i>		
Central	3,894	3,239
Speedwell	4,155	4,176
Southmead	3,691	3,617
Portway	2,244	1,789
Knowle West	4,971	4,705
South Bristol	5,968	5,368
Bedminster	3,458	2,700
Barton Hill	1,486	1,146
Headley Park	897	552
Moorfields	1,834	1,749
Brislington (Salisbury Road) ...	927	604
Clifton	2,980	2,514
North Bristol	4,391	3,800
Brynland Avenue	3,992	4,003
Brislington (Water Lane)	2,580	2,028
Avonmouth	915	782
Rochester Road	903	931
Frenchay	625	706
Bedminster Down	1,259	1,586
Durdham Down	3,934	3,745
Eastville	1,600	1,353
Hotwells	1,289	1,280
Newry Walk	2,407	1,019
Redcliffe	820	809
Sea Mills	1,311	945
Westbury	1,607	1,415
Dovercourt Road and Lockleaze ...	2,204	2,284
Fishponds (Guinea Lane)	1,681	1,349
St. George (Verrier Road)	1,255	1,363
Inns Court Road and William Budd ...	1,117	2,356
Ullswater Road	1,461	1,381
Lawrence Weston	1,744	1,742
Bishopsworth	436	470
Ashton Gate	—	74
Henbury	—	139
	74,036	67,719
Average attendance per session ...	22.6	20.2
<i>Children between 1 and 5 years :—</i>		
Central	1,488	1,646
Speedwell	1,919	1,865
Southmead	1,348	1,415
Portway	1,488	1,358

Maternity and Child Welfare—continued.

						1951	1952
<i>Maternity Infant Welfare Centres (contd.)—</i>							
	Knowle West	...	...	...	...	2,379	2,637
	South Bristol	...	...	...	...	2,615	3,199
	Bedminster	...	...	...	...	1,010	1,047
	Barton Hill	...	...	...	...	341	566
	Headley Park	...	...	...	...	429	523
	Moorfields	...	...	...	...	504	523
	Brislington (Salisbury Road)	...	...	...	...	279	268
	Clifton	...	...	...	...	972	1,111
	North Bristol	...	...	...	...	894	1,059
	Brynland Avenue	...	...	...	...	1,448	1,579
	Brislington (Water Lane)	...	...	...	...	497	734
	Avonmouth	...	...	...	...	457	522
	Rochester Road	...	...	...	...	270	298
	Frenchay	...	...	...	...	567	521
	Bedminster Down	...	...	...	...	786	829
	Durdham Down	...	...	...	...	1,978	1,859
	Eastville	...	...	...	...	463	368
	Hotwells	...	...	...	...	587	727
	Newry Walk	...	...	...	...	1,697	691
	Redcliffe	...	...	...	...	718	733
	Sea Mills	...	...	...	...	723	510
	Westbury	...	...	...	...	829	784
	Dovercourt Road and Lockleaze	...	...	...	...	963	956
	Fishponds (Guinea Lane)	...	...	...	...	411	372
	St. George (Verrier Road)	...	...	...	...	260	311
	Inns Court Road and William Budd	...	...	...	...	672	1,054
	Ullswater Road	...	...	...	...	818	657
	Lawrence Weston	...	...	...	...	753	620
	Bishopsworth	...	...	...	...	301	359
	Ashton Vale	...	...	...	...	—	45
	Henbury	...	...	...	...	—	84
						30,864	31,831
Average attendance per session ...						9.4	9.5
New Patients							
Children under 1 year ...						5,945	5,896
Children between 1 and 5 years ...						1,002	925
(vi)	<i>Birth Control :—</i>						
	Attendances	...	...	...	...	488	852
(vii)	<i>Minor Ailments :—</i>						
	Inspection	...	...	...	...	2,095	2,098
	Treatment	...	...	...	...	7,519	4,080
	New Patients—Inspected	...	...	...	...	1,351	1,157
	Treated	...	...	...	...	1,661	1,736
(viii)	<i>Relaxation Classes :—</i>						
	Ante- and Post-Natal Exercises	...	...	...	...	1,563	2,485
	New Patients	...	...	...	...	346	475
(ix)	<i>Sterility Clinic :—</i>						
	Attendances	...	...	...	...	350	548
	New Patients	...	...	...	...	75	139
	<i>Backward Children :—</i>						
	Attendances	...	...	...	...	199	166
	New Patients	...	...	...	...	22	31

Maternity and Child Welfare—continued.

						1951	1952
<i>Special Diagnostic Clinic :—</i>							
Attendances						1,182	789
New Patients						358	160
(d)	<i>Health Visitors :—</i>						
	<i>Visits :—</i>						
	Ante-natal					1,869	1,833
	Primary					6,508	6,423
	Under one year					24,947	29,383
	1-5 years					55,442	57,035
	Eye cases					1,006	1,216
	Ophthalmia Neonatorum					43	21
	Summer Diarrhoea					1	—
	Neo-natal deaths					6	67
	Other special visits					5,272	6,240
	Blank visits					17,846	17,160
	Tuberculosis					14	9
	Tuberculosis—Blank visits					—	—
	Unmarried mothers					392	307
	Premature babies					2,262	3,147
<i>Sessions attended :—</i>							
Clinics						8,541	8,200
Nursery schools and classes (hours) ...						2,181	2,150
(e)	<i>Inspector of Midwives and Nursing Homes :—</i>						
	<i>Visits :—</i>						
	1. Midwives Acts—						
	Routine					193	163
	Special					205	183
	2. Home conditions					165	116
	3. Blank visits					201	130
	4. Nursing Homes (Routine)					27	31
	5. Nursing Homes (Special)					—	16
	6. Midwives cases					206	271
(f)	<i>C.M.B. Forms :—</i>						
	A. Medical Help					426	385
	B. Death					5	2
	C. Stillbirth					11	13
	D. Laying out the dead... ..					9	21
	E. Liability of infection					2	7
	F. Artificial feeding					219	342

Table 2—Maternity and Child Welfare—Welfare Department.

	1951	1952
Cases on Register at beginning of year	2,971	3,169
„ added	361	356
„ removed	163	—
„ on Register at end of year	3,169	3,525
Applications received :—		
(a) Unmarried mothers	293	308
(b) Married women	68	49
Affiliation Cases completed :—		
(a) Orders obtained	37	42
(b) Agreements arranged	46	18
Maintenance Orders (Married Women)	9	9
Assisted in application for arrears on orders	265	225
And on varying Orders	8	17
Admitted to homes :—		
(a) Expectant mothers	50	61
(b) Mothers with babies	52	37
Visits—Domiciliary :—		
(a) Ordinary	821	719
(b) After-care	959	900
Blank Visits	282	248
Interviewed in hospital or homes	949	913
Total receipts	£12,443	£13,161
„ Disbursements	£13,100	£12,365

Table 3 DENTAL DEPARTMENT

(a) Numbers provided with dental care.

	Examined		Needing Treatment		Treated		Made Dentally fit
	1951	1952	1951	1952	1951	1952	1952
Expectant and nursing mothers	1,038	940	994	917	782	667	599
Children under 5	2,599	2,661	2,543	2,594	2,540	2,601	2,434

(b) Forms of dental treatment provided.

	Expectant and Nursing Mothers		Children under five	
	1951	1952	1951	1952
Extractions	1,405	1,541	3,515	3,583
Anæsthetics—Local	54	81	1	5
Anæsthetics—General	522	527	1,986	1,998
Fillings	278	381	139	145
Scaling and gum treatment	655	635	—	—
Silver nitrate treatment	—	—	1,126	1,066
Dressings	156	172	—	—

Table 4—Sunlight Treatment.

Central Clinic						1951	1952
<i>Artificial Sunlight—</i>							
<i>New Patients—</i>							
	Adults	...	...	...	...	37	14
	Schoolchildren	...	...	...	...	906	579
	Pre-schoolchildren	...	...	...	...	698	586
<i>Treatments—</i>							
	Adults	...	...	...	...	195	112
	Schoolchildren	...	...	...	...	8,820	6,251
	Pre-schoolchildren	...	...	...	...	6,699	4,657

Table 5—Eye Clinic.

						New Patients		Attendances	
						1951	1952	1951	1952
	Schoolchildren	...	...	...	...	1,304	1,567	6,976	8,208
	Pre-schoolchildren	...	...	...	...	95	101	494	404
	Adults	...	...	...	...	—	—	—	—
Totals						1,399	1,668	7,470	8,612

Table 6—Orthopædic Department.

						Patients		Attendances	
						1951	1952	1951	1952
Inspections :—									
	M. & C. W.	...	...	...	...	208	154	307	225
	School	...	...	...	...	775	746	1,220	1,178
Totals						983	900	1,527	1,403
Treatment :—									
	M. & C. W.	...	...	...	...	99	51	2,221	1,377
	School	...	...	...	...	340	339	4,663	5,440
Totals						439	390	6,884	6,817

Table 7—Foot Clinic.

						Patients		Attendances	
						1951	1952	1951	1952
	M. & C. W.	...	...	...	...	10	—	17	—
	School	...	...	...	...	825	833	3,275	3,844
Totals						835	833	3,292	3,844

Table 8—Ear, Nose and Throat Department.

	Patients		Attendances	
	1951	1952	1951	1952
Inspections :—				
M. & C. W.	69	75	76	93
School	946	957	1,805	1,983
Totals ...	1,015	1,032	1,881	2,076
Treatment :—				
M. & C. W.	6	8	71	109
School	188	170	4,766	3,375
Totals ...	194	178	4,837	3,484

Table 9—X-Ray Department.

	Film		Screen		Total	
	1951	1952	1951	1952	1951	1952
<i>Central Health Clinic:—</i>						
Chest	8,071	8,153	4,988	7,085	13,059	15,238
Schools	1,313	1,262	—	—	1,313	1,262
M. & C. W.	454	1,356	—	—	454	1,356
Others	2,049	2,000	—	—	2,049	2,000
Totals ...	11,887	12,771	4,988	7,085	16,875	19,856

Table 10—Scabies Baths.

	Central Health Clinic		Southmead		Feeder Road		Totals	
	1951	1952	1951	1952	1951	1952	1951	1952
Children	240	216	34	12	—	—	274	228
Infants (Under 5)	53	98	14	2	—	—	67	100
<i>Adults—</i>								
Females	106	116	10	—	—	—	116	116
Males	—	—	—	—	77	61	77	61
Total Attendances...	399	430	58	14	77	61	534	505
<i>*New Patients :—</i>								
Children	134	120	17	8	—	—	151	128
Infants (Under 5)	28	54	8	1	—	—	36	55
<i>Adults—</i>								
Females	59	66	6	—	—	—	65	66
Males	—	—	—	—	39	37	39	37
Total New Patients...	221	240	31	9	39	37	291	286

In addition to the above, 12 patients involving 24 attendances were dealt with for adjacent authorities.

* Included in "Total Attendances."

Table 11—Dispensary.

(1) Establishments served :—							1952
Health Centres and Clinics (37)							
Residential Institutions (24)							
Day Nurseries, Day Special Schools ; Nursery Schools and Classes (39)							
Other Establishments (9)							
Municipal Midwives (49)							
School first aid sets (588)							
Gas and air apparatus servicings (1,633)							
(2) Turnover of Drugs, Dressings, etc. :—							
Quantity of mixtures made	...	...	gallons	...			665
" " ointment made	...	...	lbs.	...			609
Vit. A. & D. Emulsion	...	...	gallons	...			101
Vit. A. & D. Capsules	...	...	caps.	...		110,000	
Whooping Cough Vaccine	...	...	c.c.	...			200
P.T.A.P. Diph. Proph. (5 c.c. vials)	...	...	c.c.	...			1,592
Other Medicines dispensed	...	...	gallons	...			278
Powders	...	...	lbs.	...			43
Lint and Cotton Wool	...	...	lbs.	...			2,077
(3) Bulk purchase of Drugs :—			lbs.	...			4,106
			gallons	...			101
			tabs.	...			999,000

Table 12—Diphtheria Immunisation.

	1951	1952
<i>Diphtheria</i> —Number of immunisations completed at Schools, Clinics and Nurseries and by General Practi- tioners during the year.		
Full course—Ages 0—5 years	4,998	4,539
Ages 5—15 years	874	199
Booster dose —15 years	5,849	3,917

Table 13—Day Nurseries.

No. on Register 31.12.51	No.	Places Provided 31.12.52	No. added to Register	No. removed from Register	No. of Deaths	No. on Register 31.12.52	Waiting List
301	7 *	290 *	293	335	—	259	12

* Includes 30 places at Coronation Road Nursery temporarily closed for repairs.

Table 14—Home Helps, 1952.

Type of Case	New Cases	Total Cases	Cases being attended at end of year 1952	Case Hours			
				Full Cost	Part Cost	Free	Total
Confinements ...	193	225	4	4,829	9,253	1,005	15,087
Young children	188	216	15	5,410	8,372	2,775	16,557
Acute sickness	136	162	8	2,129	3,563	3,116	8,808
Aged and infirm or chronic ...	426	1,030	725	1,788	66,783	140,513	209,084
Tuberculosis ...	26	57	35	377	8,000	8,163	16,540
	969	1,690	787	14,533	95,971	155,572	266,076

Table 15—Care and After-Care, Nursing Appliances Equipment for Loan.

Items	No. on Loan at 31.12.52
Air rings	274
Air beds	23
Bed blocks (prs.)	3
Bed pans	238
Bed pulley	7
Back rests	234
Bed tables	3
Breast pump	2
Commodes	39
Cradles	39
Crutches	39
Feeding cups	24
Inhalers	1
Mattresses—Dunlopillo	2
Rubber sheets	282
Sand bags	2
Sputum mugs	38
Steam kettles	—
"T" sticks	10
Urinals—male	104
Urinals—female	21
Wheel chairs	50
Total	1,435

BRISTOL DISTRICT NURSING ASSOCIATION

Table 16—Nursing Statistics.

<i>1st January—31st December.</i>	1952	1951
Number of Cases on books 1st of January ...	1,326	1,328
Number of New Cases attended during year	8,651	8,321
Total ...	9,977	9,649
Cases sent by :—		
Doctors	6,548	5,913
Hospital Authorities	949	969
Maternity and Child Welfare Authorities	50	48
Employers	1	10
Brought to notice of Nurse	21	47
Applications made by Patients Friends...	1,082	1,334
Cases :—		
Convalescent	4,477	4,332
Transferred to Hospital	1,359	1,329
Deaths	989	1,188
Removed for other causes	1,688	1,474
Remaining on books 31st December ...	1,464	1,326
Analysis of Cases :—	New Cases	Visits to Old & New
Pneumonia	29	374
Measles	7	74
Whooping Cough	6	47
Tuberculosis	177	6,231
Other Notifiable Diseases	20	176
Mumps	—	—
Influenza	45	259
Chicken-Pox	2	17
Other Infectious Diseases	15	136
Other Diseases occurring in children under 5 years of age	291	1,797
Complications of Pregnancy and Puerperium	18	138
Miscarriages	26	205
Breast Abscesses	78	976
Pernicious Anaemia	129	5,671
Rheumatoid Arthritis	156	13,391
Diabetes	230	52,848
Respiratory Diseases (inc. Bronchitis) ...	1,150	14,330
Diseases of Blood Vessels (inc. Strokes)...	569	21,316
Urogenital	179	6,149
Varicose Ulcers	100	10,545
Heart Disease	796	28,095
Disease of Nervous System	72	4,800
Gastro Intestinal	1,126	6,843
Cancer	439	16,281
All Other Diseases	2,991	48,891
Total number of visits paid to all cases ...	239,590	236,283
Night calls — visits between 8 p.m. and 8.30 a.m.	732	1,308

Table 17—Ambulance Service Statistics, 1952.

Total Number of Patients Carried			
January ...	...	...	10,548
February ...	...	...	10,288
March ...	...	...	10,269
April ...	...	...	11,020
May ...	...	...	12,110
June ...	...	...	10,807
July ...	...	...	11,796
August ...	...	...	10,267
September ...	...	...	10,988
October ...	...	...	12,010
November ...	...	...	11,422
December ...	...	...	12,637
Total ...			134,162
Increase over 1951 ...	...	16,039 patients.	
Total Milage ...	...	836,530	
Increase over 1951 ...	...	30,472 miles.	

Table 18—Venereal Disease Statistics.

	<i>Male.</i>	<i>Female.</i>
Total number of Registrations during 1952 ...	1,449	461
New cases persuaded by the Social Workers to attend clinic for medical examinations in view of possible risk of infection	92	99
New cases who attended through other agencies ...	1,357	362
Number of cases on Social Workers' Register from 1st January to 31st December 1952	496	380
Social Workers attendances at Clinic	387	408
Number of new cases interviewed in the clinic ...	414	318
Current case interviews	540	864
In-patient interviews	334	206
Contact tracing visits	129	176
Visits to Defaulters	297	338
Consultations with voluntary bodies	229	360
Total number of visits including those for other purposes	694	845

Default Control. Quiet, constructive work has been carried out in order to meet this problem, with the following results :—

	<i>Male.</i>	<i>Female.</i>
Number of patients first registered in 1952 defaulting	48	44
Number of other patients defaulting ...	157	117
	205	161
Number of actual defaults involved ...	243	209
Number of patients who returned for treatment	174	136
	31	25
Number of patients who did not return ...		

Disposal of Balance.

Transferred to other clinics outside Bristol area	20	6
Stated to be attending own Doctor	1	5
Refused to attend	2	5
No Trace : (a) False name and address ...	2	—
(b) Gone to unknown address ...	3	3
Carried forward to 1953	3	6
	31	25

There is a difference between “intentional” and “casual” default. Some patients with no sense of time will fail to attend when due, but if a reminder is sent most of them will thereafter attend with regularity.

ENVIRONMENTAL HEALTH SERVICES

	Section C	Page
I SANITARY CIRCUMSTANCES	1-43	
(Report of Chief Sanitary Inspector)		
(i) Sanitary Circumstances	1	
(ii) Housing	6	
(iii) Inspection of Meat and other Foods	8	
(iv) Milk and Food Inspection	14	
(v) Atmospheric Pollution, Noise, Nuisances, etc.	31	
(vi) Rat Destruction, Disinfection and Disinfestation	38	
(vii) Factories Acts	43	
II ADMINISTRATION OF THE SHOPS AND KINDRED LEGISLATION	44-48	
III PUBLIC ANALYST AND OFFICIAL AGRICULTURAL ANALYST	49-84	
Part I Food and Drugs	51	
„ 2 Fertiliser and Feeding Stuffs Act	61	
„ 3 Water Analysis and Sewage Chlorination	64	
„ 4 Rag Flock Act	67	
„ 5 Miscellaneous Analyses	68	
„ 6 Poisons and Pharmacy Act 1933	78	
„ 7 Atmospheric Pollution	79	
„ 8 Spectrophotometry	82	
„ 9 Other Activities	83	

I. SANITARY CIRCUMSTANCES, HOUSING AND INSPECTION OF FOOD

by F. J. Redstone (*Chief Sanitary Inspector*)

Deputy Chief Sanitary Inspector	..	G. J. Creech
Senior Housing Inspector	.. ..	C. E. Bowden
Senior Food Inspector	.. ..	P. Hayter
Senior Port Health Inspector	..	E. I. Davies

(i) SANITARY CIRCUMSTANCES

The end of a year is an occasion which enables one to take stock of things accomplished and is useful too for reviewing those duties which have not been fully covered because of staff shortages. From the environmental health point of view, conditions in the city during the post war years have improved considerably ; some of the derelict sites which caused serious trouble from rat harbourage and rubbish deposits have been cleared, whilst others have been redeveloped under the new planning schemes.

A great deal of progress has also been made in improving housing conditions but circumstances have not been at all favourable towards the efforts made in preventing the rapid deterioration of property. The inevitable result of this is that thousands of houses in this city can no longer be repaired at reasonable cost and many owners are prepared to transfer their properties to the Corporation for a nominal sum. The condition of this class of property, however, often means that a demolition order must be made and this is normal procedure with houses of worn out and clearance type.

In view of the extreme housing shortage, it is felt that a planned system of limited reconditioning would considerably improve many of the blighted areas and so maintain tolerable conditions in such property for a further period.

These and other problems received consideration by the health and housing committees and there is reason to believe that a national solution to this involved question will ultimately be found.

Examination successes during the year by Officers of the Section

The following further qualifications were obtained by officers of the section during the year :—

Royal Sanitary Institute : Advanced Knowledge of the Duties of a Sanitary Inspector—O. H. PAGE.

Royal Sanitary Institute : Certificate for Inspector of Meat and Other Foods—P. W. THORN.

National Certificate in Building (Third Year)—B. G. JONES.

Home Office Civil Defence Technical Training School : Certificate for Civil Defence General Instructor—G. L. WHONE.

Civil Defence Basic Instructor's Course—J. E. MOUNTJOY.

Office Administration

The number of complaints received during the year was 3,899. These appeals for help from the general public necessitated 33,295 visits by the sanitary inspectors and, although a great deal of work was accomplished by the service of informal notices, it was found necessary to take statutory action in 861 cases.

The duties of the public health department in connection with the condition of dwelling houses are clear, but efforts to bring about improvement are, to some extent, conditioned by the staff available and demands of other special environmental health drives. For instance, 1952 saw an increase of over one thousand visits to food shops in furtherance of the "clean food campaign" and, in addition, the visits to other classes of shops to check on sanitary provisions numbered three hundred more than in 1951.

The chief sanitary inspector's department continues to function without its full complement of sanitary inspectors. It will be realised that administration must be flexible so as to ensure that the more urgent demands are dealt with promptly whilst the more routine matters are covered as widely as possible. At the same time, it should be pointed out that special drives in connection with particular aspects of the work could cause unbalance in coping with important matters; with this in mind, a sense of proportion has been established and maintained throughout the year.

Visitors from Foreign Countries

During the post war years, Bristol has taken an active part in affording facilities to foreign visitors seeking information on various aspects of public health administration.

Whilst there has been a decrease in the number of visiting representatives, the medical officers and sanitary inspectors from abroad have appreciated the explanation of our procedure and this inter-change of views has not been without value to all concerned.

Repairs to Property in Owners' Default

At the beginning of the year under review, 15 properties were outstanding—3 being by the Corporation's contractor, 3 being repaired by their owners, and 9 awaiting attention.

During 1952, 45 cases were referred to the defaults section for consideration.

The 60 cases were dealt with in the manner shown below :—

- 23 properties were repaired by the Corporation's contractor.
- 10 properties were repaired by their owners after the cases had been referred to defaults section.
- 3 properties were not proceeded with for various reasons.

At the end of 1952, a total of 24 properties remained outstanding, as follows :—

- 5 properties in course of repair by the Corporation's contractor.
- 1 property in course of repair by the owner.
- 18 properties awaiting attention.

During the year, 26 orders were issued to the various Corporation contractors, and accounts to the order of £1,611 6s. 6d. were passed for payment.

Once again the number of cases dealt with under defaults procedure shows a slight increase, both in properties repaired by the Corporation contractors, and in the costs involved.

Work by Agreement under Section 275 of the Public Health Act 1936

During the year, the chief sanitary inspector continued to receive requests from property owners that works to comply with notices served should be carried out by the Corporation's contractor on an agreement basis.

- 2 properties were in course of repair by the Corporation's contractor at the beginning of the year.
- 3 cases were still under consideration at the beginning of the year.
- 10 new cases were referred to defaults action for consideration during the year.

These 15 cases were dealt with in the following manner :—

- 5 properties were repaired by agreement. Accounts for three of them, to the order of £655 6s. 2d., were passed for payment ; accounts for the other 2 had not been received from the contractors by the end of the year.
- 1 property was being repaired by the Corporation's contractor.
- 1 case was waiting for the owner's signature to the agreement.
- 1 case was awaiting consideration.
- 7 cases were not considered suitable, for various reasons, for this type of action.

SANITATION, HOUSING, SHOPS ACTS, ETC.

Sanitary Inspection

1951				1952		
Visits	Re-visits	Total		Visits	Re-visits	Total
		3,999	Complaints			3,899
		91	Recommendations for Housing accommodation			53
			<i>Visits :—</i>			
4,933	19,101	24,034	Dwelling houses (P.H.)	3,763	18,146	21,909
2	12	14	Houses let in lodgings	3	4	7
9	20	29	Common Lodging houses	6	14	20
204	441	645	Foodshops—Registerable	141	308	449
465	1,391	1,856	Not registerable	1,261	1,624	2,885
155	392	447	Other shops	195	518	713
28	185	213	Bakehouses	41	129	170
117	215	332	Workplaces and Offices	56	131	187
147	175	322	Factories—Non-mechanical	61	214	275
398	796	1,194	Mechanical	293	878	1,171
90	29	119	Outworkers	36	33	69
29	73	102	Removal of Aged Persons	31	126	157
40	318	358	Smoke observations	34	242	276
89	15	104	Offensive trades	9	35	44
30	131	161	Entertainment places	53	152	205
32	17	49	Tents, vans and sheds	16	155	171
63	118	181	Keeping of animals	63	155	218
794	166	960	Food inspection	622	174	796
1,435	1,432	2,867	All other matters	1,384	2,150	3,534
—	—	94	Infectious diseases	9	30	39

In-tima- tion	Statu- tory	Compliance			In-tima- tion	Statu- tory	Compliance	
		I.	S.				I.	S.
1,024	915	1,129	1,094	<i>Notices :—</i>				
—	—	1	2	Dwelling Houses (P.H.) ..	636	861	686	549
—	—	—	—	Houses let in lodgings ..	—	—	—	—
—	—	—	—	Common lodging houses ..	—	—	—	—
—	—	—	—	Foodshops—Registerable ..	3	—	1	—
109	4	116	2	Not registerable	111	—	99	2
35	—	33	1	Other shops	58	—	52	—
11	—	9	—	Bakehouses	4	—	8	—
9	1	6	1	Workplaces and Offices ..	—	—	1	—
19	—	20	—	Factories—Non-mechanical ..	41	—	11	—
74	—	76	—	Mechanical	69	—	57	—
—	—	—	—	Outworkers	—	—	—	—
—	—	—	—	Removal of aged persons ..	—	—	—	—
3	—	1	—	Smoke observations	2	—	—	—
—	—	—	—	Offensive trades	—	—	—	—
—	—	1	—	Entertainment places	1	—	1	—
—	—	—	—	Tents, vans and sheds	—	—	—	—
9	—	9	—	Keeping of animals	—	—	—	—
4	—	8	1	All other matters	4	—	3	—

Remedial Action

1951		1952
	<i>Drainage Works—</i>	
2	New drains laid	7
270	Drains repaired	145
514	Choked drains cleared	545
93	Tests made	50
	<i>Sanitary Conveniences—</i>	
34	Flushing appliances introduced	27
16	Additional closets fitted	13
6	Separate closets for sex provided	4
77	New pans fitted	54
7	Action re bathroom and geyser vent	1
—	Urinals fitted	—
530	Other works	296
31	Intervening vent space provided	37
—	Cesspools abolished	5
	<i>Water Supplies—</i>	
10	New and additional installation	3
93	Hot water installed	94
—	Wells closed	—
	<i>Other Sanitary Fittings—</i>	
54	New sinks fitted	26
11	Additional sinks provided	1
32	Wash basins provided	31
	<i>Other Works—</i>	
572	Roofs repaired	432
329	Dampness remedied	321
2,568	Other new and repair works	1,733
11	Yards paved and drained	28
43	Houses cleansed—Dirty	39
53	Verminous	103
9	Food store installed—cooking facilities improved	1
9	Lighting improved	40
10	Ventilation improved	7
1	Meal rooms provided	1
4	Heating provided	4
4	Exhumations	2
	<i>Keeping of Animals—</i>	
4	Removal of manure	—
1	Provision of manure receptacles	—
1	Drainage provided	1
	<i>Aged and Infirm Persons—</i>	
9	Removals—Voluntary	13
1	Court Order	4
	<i>Smoke Observations—</i>	
8	Infringements—Found	17
8	Remedied	17
	<i>Noise—</i>	
7	Nuisances—Found	14
7	Abated	14
	<i>Other Nuisances—</i>	
116	Found	284
116	Abated	284
		

(ii) HOUSING

Under present circumstances of housing shortage, it is recognised that there are many problems associated with the full operation of the Housing Acts. During the year, action was taken to deal with the repair of those houses worthy of that action, but others were so worn-out or dangerous that they had to be dealt with by means of demolition orders.

It will be appreciated that every demolition order made accentuates the demand for housing accommodation, and it should be noted that such rehousing does not necessarily reduce the number of families on the waiting list because in many cases, although the houses were so bad, no previous application had been received for alternative accommodation.

Housing Act 1936—Appeals

During the year, six appeals were lodged against the demolition orders made by the council. Of these, five were withdrawn but the one which came before the county court had some unusual features which are of interest.

The owner of this house indicated in writing his intention to submit a list of works and after some time, involving two adjournments by the housing committee, a list of works was received. As the suggested works would not render the property fit, the committee made a demolition order and the owner subsequently appealed, stating as his grounds that the house could be repaired at a reasonable cost. At the hearing, the owner produced, through his counsel, a new specification professionally drawn up which the court was asked to accept. The owner's professional witness stated that the value of the premises was £170 and the cost of the works £270, but argued that it was essential to consider what was termed a "negative value." The appellant demonstrated that the cost involved in demolition, repairing defects to the exposed party walls of adjoining houses, and the provision of support by shoring would be £217. It was contended that it was reasonable to spend £270 on a house valued at £170 when fit, to prevent a total loss of £217. The Corporation relied on Sub-Section 3 of Section 9, Housing Act 1936, and made legal submission accordingly.

Respecting the new specification submitted, the Corporation agreed that, subject to minor amendments, the works detailed would have made the house fit.

In a reserved judgment the judge found :—

- (a) That he was not entitled under Sub-Section 3 of Section 9 to have regard to negative values and that the house could not be repaired at reasonable cost.
- (b) That whilst it was within the prerogative of the court to accept a revised specification which the Corporation had never seen, he was unable to exercise his discretion in this case, giving as his reason the great difference between the original and final specification.

The appeal was dismissed.

Barton Hill Redevelopment Scheme

Briefly, the responsibilities of local authorities under the Housing and Public Health Acts are, the provision of houses, their repair, demolition or closure, dangerous structures, abatement of nuisances and rat repression. Some blighted areas require action in connection with all of these matters and an appreciation of this position in the older parts of the city is really the foundation of present action being taken in the Barton Hill area.

During the year, the council made a compulsory purchase order under Part V, Housing Act 1936 (as amended by the 1949 Act) affecting twenty-one acres upon which stand, with other buildings, 624 dwelling houses. In addition there are 47 void sites of varying shape and size.

The general plan is to demolish and develop the southern portion of the area, commencing immediately, and progressively more northwards to complete the whole in ten years. Apart from the health benefits which will follow the provision of new houses, a scheme of this kind will minimise disturbance and permit those families who wish to remain in the area to do so.

Housing Acts

1951		1952
—	<i>Inspections—</i>	—
—	Section 9	—
131	„ 11 and 12	97
—	Clearance area	—
—	<i>Represented to Committee—</i>	—
—	Section 9	—
131	„ 11 and 12	97
—	Clearance area	—
—	<i>Orders made—</i>	—
85	Section 11 (demolition)	91
7	„ 12 (closing orders)	12
12	„ 11 (undertakings to repair accepted)	18
9	„ 11 (undertakings not to use accepted)	9
—	„ 11 (closing orders—Sec. 3 Housing Act, 1949)	—
—	<i>Houses Repaired—</i>	—
—	Section 9—Informal	—
—	„ 9—Formal	—
—	„ 9—Formal by Corporation in default	—
8	Undertakings to repair	5
5	Undertakings not to use cancelled after repair	2
5	Other repairs	11
27	Rent Certificates issued	14
—	Closing Orders determined after repair	3

—	<i>Section 15—Appeals against Demolition Orders—</i>	—
1	Appeal dismissed	1
—	Withdrawn	1
—	Hearing pending	1
—	<i>Section 155—</i>	—
2	Recovery of possession : Orders obtained	2
—	Hearing pending	—

Bristol Corporation Act 1950

Sections 41, 42 and 43 of the Bristol Corporation Act 1950, though not operated by the health or housing committees, have a bearing on housing and are, therefore, worthy of mention.

Section 41 :—Demolition of Buildings

This section states that no person shall demolish or take down any building or part without first giving notice in writing to the Corporation, who are empowered to stipulate reasonable terms and conditions requiring:—

- (a) the shoring of adjacent buildings, and
- (b) the removal of any material or rubbish resulting from the demolition.

The section includes power to the Corporation to carry out stipulated works in default and further permits information to be laid before the court where a person fails to comply with the provisions of the section with financial penalties upon conviction.

Section 42 :—Expenses of executing demolition order to be a charge on the property.

This section is designed to overcome a weakness which existed under the Housing Act 1936. Under Section 13, Sub-Section 4, of that Act, the local authority are empowered to recover expenses incurred in default works through the courts. Where a judgment was obtained the expenses (including the costs of the court and interest) were not a charge on the property. Section 42 now enables such a charge to be entered on the Local Land Charges Register.

Section 43 :—Dilapidated and Neglected Structures

This section gives the Corporation power to deal with unoccupied, neglected structures which are ruinous, or so far dilapidated as to be unfit for use or occupation, or where the structural condition is prejudicial to property in, or the inhabitants of the neighbourhood.

The Corporation may, by notice, require an owner within a specified period, not being less than 21 days :—

- (1) to take down the neglected structure or any part thereof ;
- (2) to put the neglected structure or any part thereof into a state of repair or good condition, or
- (3) to execute such works as are necessary to prevent trespass.

The owner is safeguarded in that he has a right of appeal to the court. The section further empowers the Corporation to act in default.

Moveable Dwellings

The usual close watch has been maintained on the question of tents, vans and sheds used for human habitation within the city area, and as in former years, the establishment of this kind of dwelling has been firmly controlled.

In a few cases, licences were granted to building firms permitting the use of moveable dwellings for key workers for a restricted period, but on public health grounds other applications were refused by the health committee. In one case an applicant's appeal against refusal to grant a licence was successful.

(iii) INSPECTION OF MEAT AND OTHER FOODS

Meat Inspection

A total of 134,216 carcasses of meat were inspected at the Gordon Road Abattoir, Hotwells Lairs, Bacon Factories and various other institutions in the city. The quantity of meat found unfit for human consumption and condemned amounted to 485 tons, which was 67.21 tons more than in the previous year.

Public Abattoir, Whitehall

The number of animals slaughtered at the Public Abattoir, Gordon Road, has been maintained at the same high level as in previous years, and it is apparent that these premises are greatly overloaded during the peak periods.

The capacity use of the cooling hall has been the cause of trouble in recent years, but during 1952 meat cooling was further improved by the installation of additional ventilation and extractor fans, with the result that no complaints have since been received. The extended use of the

abattoir required the purchase of additional slaughtering and hanging equipment and this was provided. In addition, extensive work was carried out to deal with damp walls in the office and mess room buildings.

The most important feature of the past year was that final approval was given to the scheme for extension and improvement at this abattoir. The scheme provides for a new lairage building to accommodate 200 cattle, and this should overcome the criticism and difficulties which have been experienced in this respect. It is also planned to redesign and re-equip the slaughter hall so as to provide a streamlined method of operation in accordance with modern principles. The cooling hall is to be extended and provided with refrigeration facilities and this will greatly assist the proper cooling and handling of meat.

The office and mess room accommodation provided for all those concerned with the slaughter and distribution of meat supplies at this abattoir has been unsatisfactory for some considerable time. It is, therefore, pleasing to record that this important aspect has not been overlooked in the improvements which it is hoped to complete during the coming year.

Percentages of Carcases Destroyed of Animals Examined

1951	2.2%	..	Beasts	..	2.05%	1952
	6.0%	..	Calves	..	1.7%	
	0.15%	..	Sheep	..	0.2%	
	0.04%	..	Pigs	..	0.58%	

Transport and Handling of Meat

The chief sanitary inspector reported that a letter had been received from the Association of Municipal Corporations which stated that the attention of this Association had been drawn to unsatisfactory standards in connection with the transport and handling of meat and that it had been decided to ascertain the general position throughout the country with a view to further representations being made to the Ministry of Food, if considered necessary. Complaints received had related to the use of vehicles lacking equipment for handling meat, the deposit of meat on floors of vehicles, absence of wrapping, etc.

Inspection of Meat and Other Foods

1951		1952
	<i>Visits :—</i>	
448	Meat Markets	319
5,051	Shops	7,111
—	Cattle Markets and Railway Sidings	—
—	Fish curing premises	—
2	Sausage making premises	83
4	Cold Stores	10
1	Street traders	—
20	Institutions	20
1,635	Slaughterhouses	1,451
	<i>Remedial Action :—</i>	
—	Slaughterhouses cleansed	—
—	Slaughterhouses rebuilt, repaired or altered	—
—	Sanitary defects, etc.	—

1951			1952	
City	Abattoir		City	Abattoir
		<i>Animals examined :—</i>		
12,704	14,181	Beasts	12,355	13,928
60	106	Calves	530	232
22,618	21,713	Sheep	30,069	27,050
1,221	5,224	Pigs	807	6,326
—	—	Pigs (Imported)	—	—
36,724	—	Pigs, bacon	42,919	—
—	10	Goats	—	1
		<i>Carcases destroyed :—</i>		
201	408	Beasts	168	380
3	7	Calves	4	9
26	40	Sheep	48	80
122	68	Pig	147	144
—	—	Goats	—	—

1951		1952
Tons		Tons
	<i>Meat destroyed from :—</i>	
206½	Slaughterhouses and shops	229½
248½	Abattoir	266½
—	Cold Stores	—
102	Fish, poultry, vegetables, etc.	126½





The destruction of diseased animal carcasses by the Flame-Gun method

A report was submitted on the transport and handling of meat in Bristol which showed that a marked improvement had been effected during the last few years in meat handling arrangements ; vehicles had been provided with meat hanging facilities and the general standard of meat depots and handlers' clothing received continuous attention. Whilst much had been achieved in this respect, there is a great deal to be done towards the establishment and maintenance of better standards.

Diseases of Animals Act and Orders

Responsibilities and duties under the Diseases of Animals Act and Orders made in connection therewith, are divided between the Ministry of Agriculture and Fisheries and local authorities. The statute law on this subject has been recently consolidated into one act, namely, the Diseases of Animals Act 1950, which came into force on 1st January, 1951. The Minister of Agriculture and Fisheries and his predecessors have frequently exercised the powers of making orders ; there may be in force at any given moment a large number of orders prohibiting the movement of cattle to and from areas in which foot and mouth disease or other diseases have been notified.

For some years the Bristol City Council has employed the part-time services of a veterinary surgeon and this officer has been responsible for those duties which are to be carried out by the local authority under the Diseases of Animals Act and Orders.

The recent widespread outbreak of anthrax revealed the need for a review of this administration, particularly in connection with the facilities necessary to deal with diseased carcases. It is unsatisfactory that the City of Bristol should be forced to rely upon the loan of equipment from other authorities and this, with other important aspects, received consideration.

Anthrax at the Weekend

For some years this country has been relatively free from anthrax outbreaks. This was probably due to the restricted importation of foreign animal feeding stuffs during the war, but now with increased imports of these commodities, anthrax has been reported in increasing numbers. Some fifteen years of comparative freedom may have lulled local authorities into a false sense of security and the following case will serve to indicate the dangers and the work involved in dealing with an outbreak, particularly in large residential areas.

It was reported that a farmer near Bristol lost two cows by sudden death and, although both were examined for anthrax, this condition was not confirmed. A third cow became ill and was treated by a veterinary surgeon for three days before it died. The carcase and organs were then sent in the ordinary way to a knackers yard in Bristol and arrangements were made for a post-mortem examination to be carried out. During the course of this examination, the possibility of anthrax was raised and officers of the Ministry of Agriculture and Fisheries and the veterinary officer of the local authority were so informed ; subsequently anthrax was confirmed by the laboratory service.

By this time, however, several people had handled the carcase and the premises were contaminated by the infective material. It was at this point that the chief sanitary inspector was notified and arrangements were immediately made for the shed in which the carcase lay, together with the surrounding area and lorry in which the animal had been transported, to be thoroughly sprayed with a strong solution of disinfectant. All those who had been in contact with the carcase were warned of the dangers and

requested to report immediately on the slightest deviation from normal health. Two of the men concerned were brothers and they had more than usual interest in this matter, in view of the fact that their father and cousin are both said to have died from anthrax contracted at the same knackers yard some years ago and in much the same way.

It was decided to destroy the carcase *in situ*, rather than remove it to waste land nearby, as the body had been opened for examination, thus increasing the likelihood of dangerous contamination.

To deal with this aspect of the situation, a battery of ten hauck flame-guns were borrowed from the chief constable of the area from which the animal had been consigned, and the police authorities gave every possible assistance in this matter.

Apart from the lack of equipment, the administrative difficulties found in dealing with this case can be realised when it is known that diagnosis was made late on August Bank Holiday Saturday and that the work of destroying the carcase took the whole of the following Sunday. The flame guns were placed around the whole of the carcase and after some eight to ten hours, the carcase had been entirely destroyed by fire, during which process approximately eighty gallons of paraffin oil were used.

The efficiency of this procedure is demonstrated in the photograph (No. 1) included with this report.

The whole of the floor space and all materials adjacent to, or in proximity with the carcase, were subjected to treatment by the flame guns, so as to remove still further the possibility of danger, and as an added precaution, the premises were again sprayed with strong disinfectant.

The chief sanitary inspector submitted a report on this matter to the health committee and recommended that flame guns and protective clothing and other equipment be ordered and stored at the disinfecting station to meet emergencies of this kind within the city area.

Carcases Inspected and Condemned, 1952

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs	Goats
Number killed	26,283	—	762	57,119	50,073	1
Number inspected	26,283	—	762	57,119	50,073	1
All diseases EXCEPT Tuberculosis :— Whole carcases condemned	77	—	13	128	118	—
Carcases of which some part or organs were condemned	16,096	—	29	13,707	1184	—
Percentage of the number inspected affected with disease other than Tuberculosis	61.24%	—	3.80%	23.99%	2.36%	—

<i>Tuberculosis only :—</i>						
Whole carcases condemned	471	—	2	—	173	—
Carcases of which some part or organs were condemned	5,304	—	2	—	1,828	—
Percentage of the number inspected affected with tuberculosis	20.18%	—	0.26%	—	3.65%	—

(iv) MILK AND FOOD INSPECTION

New Legislation

Various new standards for foodstuffs were introduced in 1952. This new legislation concerns the department in so far that such foods are to be sampled for compliance with the standards laid down; foods so affected were sausages, jams and marmalade, coffee, suet and ice cream.

The Food Standards (Ice Cream) (Amendment) Order 1952 reduced the minimum fat content required in ice cream from 5% to 4% and the milk solids other than fat from $7\frac{1}{2}\%$ to 5%. This alteration was due to shortage of materials and it is intended that the standard shall be raised as soon as practicable.

The Ice Cream (Heat Treatment) (Amendment) Regulations 1952 permit the H.T.S.T. process to be applied in the manufacture of ice cream whereas the 1949 Regulations allowed only the "holder" process.

No H.T.S.T. plant has yet been established in Bristol.

The Mineral Oil in Food Order 1949 permitting mineral oil in food not exceeding 0.2 parts per 100 by weight was amended in 1950 to permit a maximum of 1% in fruit and again amended in 1952 to reduce this amount to 0.5% by weight.

Samples secured have revealed no infringements of these orders.

The Public Health (Meat) (Amendment) Regulations 1952. Under the provisions of the Public Health (Meat) Regulations 1924, notice of intention to slaughter an animal for human food must be given to the local authority and the word "animal" refers to cattle, swine, sheep or goats. Under the Amending Regulations of 1952, the definition of the word "animal" is extended to mean any horse, mare, gelding, pony, foal, colt, filly, stallion, ass, donkey or mule.

The Milk (Special Designations) (Specified Areas) Order 1952 became operative on 1st November, and from that date only "designated milk" may be sold by retail in Bristol, Bath, Keynsham, Kingswood, Mangotsfield, Bathavon and Warmley.

Prior to that date, it was permissible to sell pasteurised and raw milk without any designation and from open cans. Now milk can only be retailed under a designation by licence from the appropriate authority and none is permitted to be sold from open cans. From 1954 onwards, all processed milks will be bottled at the processors' dairies. As the "area" embraces authorities outside Bristol, full co-operation has been established in order to secure knowledge of all retailers and of the grades of milk sold in the "specified area."

Food Inspection

"Butter" Sweets

The Food Standards and Labelling Division of the Ministry of Food has, in agreement in various trades, established "codes of practice" which assist in the maintenance of reasonable standards of food composition.

Under one such "code," when any inference is made that sweets contain butter, there should be at least a 4% butter fat content.

Dairies, Milkshops, etc.

1951	REGISTRATIONS	1952
	<i>Milk :—</i>	
77	Dairies	74
75	Dairies outside City retailing within	74
538	Milkshops	518
	<i>Ice-cream :—</i>	
1	Premises for manufacture	—
48	Manufacture, sale and storage	37
923	Storage and sale	1,016
	<i>Licences :—</i>	
	<i>Pasteurised :—</i>	
16	To process and sell	14
274	To sell only	337
8	Supplementary	11
	<i>Sterilised :—</i>	
2	To process and sell	2
363	To sell only	428
—	Supplementary	2
	<i>Tuberculin Tested :—</i>	
12	To bottle and sell	7
116	To sell only	147
13	Supplementary	11
	<i>Accredited :—</i>	
—	To sell only	12
1	Supplementary	—

1951	VISITS AND NOTICES	1952
	<i>Visits :—</i>	
924	Pharmacy and Poisons	617
888	Dairies	438
258	Milkshops	365
572	Ice Cream premises	459
514	Food preparing premises or shops	686
1,566	Infectious Diseases (except food poisoning)	537
82	Food Poisoning	109
30	Noxious Weeds	25
7	Rag Flock	54
536	Other visits	585
—	Merchandise Marks Act	86
	<i>Notices :—</i>	
14	Informal	109
9	Informal (complied with)	98
2	Statutory	3
—	Statutory (complied with)	4
	<i>Remedial Action :—</i>	
	<i>Premises :—</i>	
—	New built	4
31	Altered or repaired	18
5	Cleansed	26
10	Other defects remedied	50
44	Hot water handwashing facilities	111
	<i>Drainage :—</i>	
4	Tests made	1
6	Repairs	5
2	Chokages cleared	1
	<i>Water Closets :—</i>	
3	Flushing appliances	8
4	New pans	7
6	Other repairs and cleansing	10
2	New plant installed (inc. sterilising facilities)	1
9	Other nuisances abated	38

Dairies, Milkshops, etc.

1951		SAMPLES	1952	
Samples taken	Samples not complying		Samples taken	Samples not complying
150	3	Pasteurisation Test (Schools) ..	199	—
		Tubercle Examination (including repeats) :—		
80	—	City	90	—
191	—	Somerset	211	—
239	—	Gloucestershire	286	—
—	—	Other Counties	8	—
2	—	Tuberculin Tested (certified) ..	—	—
44	—	Tuberculin Tested	91	14
382	24	Pasteurised	500	26
—	—	Accredited	3	—
65	—	Sterilised	53	—
194	11	Institution Milk—T.T.	66	9
4	—	Pasteurised	4	—
617	57	Under Food & Drugs Act (Milk) ..	692	55
1,040	28	Under Food & Drugs Act (other than Milk)	1,552	21
172	41	Ice Cream—(Hot Mix)	398	75
11	3	(Cold Mix)	43	6
91	—	(Chemical Composition)	280	4
56	2	Plant Tests	112	6
107	33	Churn and Bottle Rinses	249	74
283	7	Waters (Bath)	114	22
485	—	Waters (Others)	179	38
7	—	Rag Flock	33	1
67	—	Miscellaneous (Food & Drugs) ..	115	—
—	—	Miscellaneous (Bacteriological) ..	461	—

STATISTICS

Samples submitted to the Public Analyst 1st January
to 31st December, 1952

					1952	1951
<i>Sampled under the Food & Drugs Act :—</i>						
Dry goods, spirits and drugs	..				1,832	1,131
Milk	..	..	..	..	692	617
					2,524	1,748
Water, swimming baths	..	..			114	117
Water, other	..	..	..	..	80	53
Filling materials	..	..	..	..	33	7
Fertilisers and feeding stuffs	..	..	..	..	64	36
Poisons—Part II	..	..	..	..	4	6
Miscellaneous	..	..	..	..	115	67
					410	286
TOTAL	..	..			<u>2,934</u>	<u>2,034</u>

Samples submitted to the Bacteriological Laboratory
1st January to 31st December, 1952

					1952	1951
Milk—						
Tubercle examn.	..	..			595	510
Tuberculin Tested	..	..			91	100
Accredited	..	..	..	..	3	—
Pasteurised	..	..	..	..	504	526
„ (schools)	..	..	..	..	199	150
Sterilised	..	..	..	..	53	65
Special	..	..	..	..	177	32
Ice Cream—						
Hot Mix	..	..	..	..	398	172
Cold Mix	..	..	..	..	43	11
Water	..	..	..	..	99	113
Plant Tests	..	..	..	..	112	56
Churn and Bottle Rinses	..	..	..	..	249	107
Shellfish	..	..	..	..	52	54
Miscellaneous	..	..	..	..	81	187
Cysticercus Bovis	..	..	..	..	151	177
					2,807	2,260
TOTAL	..				<u>2,807</u>	<u>2,260</u>

Adverse reports were received from the laboratory in respect of the following :—

Milk	Tuberculous	..	..	21
„ T.T.	..	..	..	23
„ Pasteurised	..	..	..	26
„	Staph. aureus	..	..	54
Ice Cream	Grades 3 and 4	..	..	81
Plant Tests	..	..	..	6
Churn and Bottle Rinses	..	..	..	74
Water	..	..	..	26*
Cysticercus Bovis	..	..	..	151

* 3 polluted wells ; the remainder high bacteriological count or unsatisfactory types of bacteria.

Appropriate action was taken in all the above cases.

REGISTRATIONS

Registrations under Section 34, Food & Drugs Act, 1938

	1952	1951
Butter Factories	11	14
Wholesale Dealers in Milk-blended Butter and Margarine	38	40

Registrations under Section 14, Food & Drugs Act, 1938

	1952	1951
For the manufacture, storage and sale of Ice Cream	37	49
For the storage and sale of Ice Cream ..	1,016	923
For the preparation of sausages, cooked, pickled or preserved foods	174	162

Registrations under the Milk and Dairies Regulations, 1949

	1952	1951
Processing dairies	16	16
Other dairymen	650	674

Registrations under The Rag Flock and Other Filling Materials Act, 1951

	1952
Registered to use Filling Materials	33

Pharmacy and Poisons Act, 1933

	1952	1951
Listed Sellers of Part II Poisons	556	582

LICENCES

Annual Licences issued under The Milk (Special Designation) (Pasteurised & Sterilised Milk) Regulations, 1949

	1952	1951
To process pasteurised milk	14	16
To sell pasteurised milk	337	274
To sell pasteurised milk (supplementary licences)	11	8
To process sterilised milk	2	2
To sell sterilised milk	428	363
To sell sterilised milk (supplementary licences)	2	—
TOTAL ..	<u>794</u>	<u>663</u>

Annual Licences issued under The Milk (Special Designation) (Raw Milk) Regulations, 1949

	1952	1951
To sell Tuberculin Tested Milk	154	128
To sell Tuberculin Tested Milk (supplemen- tary licences)	11	13
To sell Accredited Milk	12	0
To sell Accredited Milk (supplementary licences)	—	1
TOTAL ..	<u>177</u>	<u>142</u>

Annual Licences issued under The Rag Flock & Other Filling Materials Act, 1951

To manufacture Rag Flock	1952
To store Rag Flock	4

NOXIOUS WEEDS

Complaints	1952	1951
Satisfactorily dealt with	13	30
Not involving scheduled weeds	8	11
	5	19

FOODS

Fish and Canned Goods, etc., Condemned

FISH								
	<i>Tons</i>	<i>Cwts.</i>	<i>Qrs.</i>	<i>Lbs.</i>	<i>Tons</i>	<i>Cwts.</i>	<i>Qrs.</i>	<i>Lbs.</i>
1952 ..	12	4	3	7	10	1	3	6
1951 ..	13	10	0	9	10	2	3	1½

MEAT INSPECTION

Animals Examined

1952					1951			
Hot-wells Lairs	Abat-toir	Bacon Fact's & City	Total		wells Lairs	Hot-Abat-toir	Bacon Fact's & City	Total
12,355	13,928	—	26,283	Beasts	12,698	14,181	6	26,885
530	232	—	762	Calves	60	106	—	166
30,069	27,050	—	57,119	Sheep	22,598	21,713	20	44,331
807	6,326	42,940	50,073	Pigs	1,206	5,224	36,739	43,169
—	1	—	1	Goats	—	10	—	10
43,761	47,537	42,940	134,238		35,562	41,234	36,765	114,561

Carcases Destroyed

1952									1951							
Hotwells Lairs		Abattoir		Bacon Fact's & City		Total			Hotwells Lairs		Abattoir		Bacon Fact's & City		Total	
T.B.		T.B.		T.B.		T.B.			T.B.		T.B.		T.B.		T.B.	
151	17	320	60	—	—	471	77	Beasts		201		408		—		609
—	4	—	9	—	—	—	13	Calves		3		7		—		10
—	48	—	80	—	—	—	128	Sheep		25		40		1		66
8	14	82	62	83	42	173	118	Pigs		11		68		111		190
—	—	—	—	—	—	—	—	Goats		—		—		—		—
159	83	402	211	83	42	644	336			240		523		112		875

Percentage of Carcases Destroyed of Animals Examined

		1952		1951
		T.B. ONLY		
Beasts	1.79%	2.08%	2.2%	
Calves	—	1.7%	6.0%	
Sheep	—	0.22%	0.15%	
Pigs	0.34%	0.58%	0.04%	

Total Weight of Meat Condemned

	1952				1951			
	Tons	Cwts.	Qrs.	Lbs.	Tons	Cwts.	Qrs.	Lbs.
Hotwells Lairs	168	17	3	21	161	19	—	27
Abattoir	258	7	1	7	248	10	—	13
Bacon Factories and City	43	6	—	8	42	2	—	15
Butchers' Shops ..	14	18	—	26	2	11	3	—
Total ..	485	9	2	6	455	3	—	27

**Action in Respect of Samples Reported to the Public Analyst as
" Not Genuine " during 1952**

Description	No. of Samples	Reason not Genuine	Action Taken
Milk ..	18	Added Water	Legal proceedings. Penalties imposed in respect of 2 churns. Ownership of 16 churns not proved.
Milk ..	19	Deficient in Fat	Genuine when bulked.
Milk ..	2	Added Water	Verbal Warning.
Milk ..	2	Added Water	Repeat samples genuine.
Milk ..	8	Added Water and Deficient in Fat	Insufficient evidence for proceedings.
Milk ..	1	Deficient in Fat	Repeat sample unobtainable.
Milk ..	5	Deficient in Fat	Appeal to cow genuine. Warning issued.
Milk ..	1	Added Water	Awaiting legal proceedings.
Sausages ..	1	Deficient in Meat	Repeat samples genuine.
Sausages ..	2	Deficient in Meat	Referred to Ministry of Food.
Sweets ..	13	Deficient in Butter Fat	Letters sent to manufacturers.
Spirit Sal Volatile ..	1	Deficient in Amonia & Ammonium Carbonate	Verbal warning.
Ice Cream ..	4	Deficient in Fat	Repeat sample genuine.
Borax ..	1	Contained Boric Acid	Incorrect labelling. Vendor cautioned.
Tincture of Quinine ..	1	Deficient in Ammonia	Stock disposed of. Warning issued.
Vinegar ..	2	Deficient in Acetic Acid	Stock exhausted
Total ..	81		

Ice Cream Grading, 1952

Month	Hot Mix							Cold Mix						
	Total Samples	Grade				“Bristol Test”		Total Samples	Grade				“Bristol Test”	
		1	2	3	4	Sat.	Unsat.		1	2	3	4	Sat.	Unsat.
January ...	22	13	5	2	2	19	3	3	2	1	—	—	3	—
February ...	29	14	10	—	5	27	2	Nil	—	—	—	—	—	—
March ...	41	21	18	1	1	40	1	Nil	—	—	—	—	—	—
April ...	34	18	9	3	4	32	2	3	1	1	1	—	3	—
May ...	44	18	17	6	3	40	4	10	7	1	1	1	8	2
June ...	29	10	10	5	4	26	3	6	5	1	—	—	6	—
July ...	44	21	10	5	8	42	2	3	1	1	—	1	2	1
August ...	49	18	16	10	5	42	7	6	2	3	—	1	4	2
September ...	25	12	9	1	3	25	—	5	4	1	—	—	5	—
October ...	32	19	9	1	3	30	2	2	2	—	—	—	2	—
November ...	24	15	7	—	2	24	—	3	1	1	1	—	3	—
December ...	19	14	4	—	1	19	—	1	—	1	—	—	1	—
Totals— ..	392	193	124	34	41	366	26	42	25	11	3	3	37	5
Percentage ..		49.2%	31.6%	8.6%	10.4%	92.9%	7.1%		59.5%	26.1%	7.1%	7.1%	88.09%	11.9%
TOTALS, 1951 ..	172	92	39	16	25	156	16	11	7	1	2	1	9	1 (none applied)
Percentage ..		53.4%	22.6%	9.3%	14.5%	90.6%	9.3%		63.6%	9.09%	18.1%	9.09%	81.8%	9.09%

In the general food sampling procedure, samples of butter scotch, butter drops, etc., were taken for comparison with the "code" standard. In practice it is found that many sweets are served from glass jars some of which, on close examination, are found to exhibit the words "butter flavoured," thus relieving manufacturers of compliance with the "code"; in many such cases, the sweets contained less than $\frac{1}{2}\%$ of butter fat.

Some legal food standards started as manufacturers' codes of practice and it may well be that in time we shall see an extension of these useful principles.

Tea Tablets

Samples of products labelled "tea tablets" and "tea-time tablets" were submitted for analysis during the year. In the case of "tea tablets," the public analyst reported that they bore little resemblance to tea, but as the labelling order refers to prepacked foods, no action could be taken about these tablets because they were sold loose from an unlabelled jar. These tablets were manufactured outside the city, but the chief sanitary inspector of the area was contacted with regard to the matter.

The "tea-time tablets," although sold in packets, were not represented as tea, and therefore no offence was committed.

Vinegar

Three samples of vinegar were found to be badly infested with eel worms and a letter to the manufacturer resulted in the stock being withdrawn.

Ice Cream—Registration of Premises, Section 14, Food & Drugs Act, 1938

During the year, 37 premises were registered to manufacture ice cream, this being a reduction of 12 compared with 1951, but premises registered for sale only, increased by 93 to a total of 1,016.

There is an increasing tendency for ice cream to be protected by wrapping when sold, and whilst this may reduce the glamour of the child's cornet somewhat, these prepacked methods are a move in the right direction from the point of view of public health and hygiene.

Careful check on the chemical and hygienic standard of ice cream was again maintained. Of the 280 samples submitted for chemical analysis, only 4 fell below the required fat standard, and 434 ice cream samples tested for grading generally showed a continuance of good quality.

In all cases where improvement was shown to be desired, investigation took place and the advice given was shown to be justified by the standard of repeat samples.

Iced Lollies

When preparing material in connection with the Bristol Corporation Act 1950, a clause was included which required the registration of premises where iced lollies are made and sold, so placing this product on a similar footing to ice cream. When this clause was considered at the committee stage in the House of Commons, it was opposed on the contention that local authorities have adequate power under Section 13, Food and Drugs Act 1938 and the clean food bye-laws which were at that time coming into operation. The health committee and its officers are, however, satisfied that the present legislation is inadequate to deal with this iced confection.

One of the main points, of course, is that we cannot properly control the conditions of manufacture when we are not aware of the premises concerned; registration would take care of this point and also enable advice to be given regarding the methods employed.

This view is substantiated by the following :—

1. Recently a sample of iced lollies submitted to the Bristol public analyst was found to be contaminated with lead, and this was traced to unsatisfactory moulds which were replaced.

2. Some time ago we obtained samples of iced lollies imported into the city from an outside area; these were contaminated with copper. This was cleared up by writing to the health department of the area concerned and the containers were replaced with stainless steel.

3. There is always a possibility that unsatisfactory materials or polluted water could be employed in the manufacture of iced lollies and it is not satisfactory that check samples of such a commodity can only be obtained by hit-or-miss methods.

Bristol led the way in the demand that such premises be registered and these arguments have been reinforced by many other local authorities and supported by the ice cream trade associations. No doubt further consideration will be given to this matter in due course, so that the public health may be more carefully safeguarded.

Registerable Food Premises

Routine attention was again given to all premises falling within the scopes of Section 14, Food and Drugs Act 1938, where meat and similar products are prepared. There was a further increase during the year of twelve such premises, bringing the total registered in the city to 174. All these premises have been regularly inspected and samples of the food products were secured and submitted for chemical analysis and other tests from time to time.

Biological Testing of Milk for Tubercle Bacilli

During the year, 595 samples of milk were submitted to bacteriological test for detection of tubercle bacilli and of that number 21 gave positive results. The necessary measures were taken at the farms involved to clear the source of infection and render the milk supplies safe.

In view of the fact that this city has now been included in a specified area, in which only designated milk can be sold, a review of sampling procedure is being made within the department so that the service shall be as effective as possible with concentration on those supplies which are likely to be of special public health importance.

Designated Milks

There has been a gradual increase in the number of dairymen licensed to pasteurise milk in this city, and the present figures are :—

Licensed Milk Pasteurisers	..	..	14
Licensed Milk Sterilisers	..	..	2

In addition, 778 persons were licensed as dealers of these grades and 177 licences to deal in tuberculin tested or accredited milk were issued.

A careful check as to the efficiency of pasteurisation is maintained, and of the 756 samples examined, only a small percentage failed to pass the requisite tests. In addition, 160 samples of tuberculin tested milk were submitted to the methylene blue test and these figures include samples of raw milk taken from hospital dairy farms at the request of the Ministry of Health.



The photograph overleaf demonstrates the improved conditions now secured under Section 14
Food and Drugs Act, 1938



Food Hygiene, 1952

Misuse of Milk Bottles

The chief sanitary inspector reported to the health committee on complaints being received regarding the discoloration of tea. This had been found to be due to traces of neutraliser provided with home perm sets which had not been completely removed from milk bottles during the washing process.

An appeal was made to the public not to use milk bottles for any purpose other than that for which they were intended, and attention was drawn to the requirements of the Milk Order 1951.

Milk and Food Inspection—Schools

School Milk

During the year, 199 samples of pasteurised milk supplied to schools were obtained and submitted to the laboratory for examination by the phosphatase and methylene blue tests. Of these samples none failed the phosphatase test and all those submitted to the methylene blue test were proved to be of good quality.

School Kitchens

Once again a close co-operation was maintained between the school meals service and the health department and at all times throughout the year the importance of hygiene was stressed by those responsible for these services. The effort towards improvement in food handling, particularly in school and other canteens, must be continuous, and it is pleasing to report steady improvement in equipment and methods in this respect.

In addition to the hygiene aspect, attention was given to the standard of food supplied to school kitchens, and 195 samples were obtained and submitted for analysis; except for a few cases of mite infestation, all food-stuffs were reported as satisfactory.

Meat supplies to school kitchens were inspected at frequent intervals, but no action was found necessary as contract quality standards were complied with in all cases.

Notices Served

The food section of the chief sanitary inspector's department served 112 notices to secure improved conditions in dairies and certain other classes of food premises during the year. The vast majority of these notices were informal in character, it being only necessary on three occasions to take statutory action to enforce compliance with reasonable standards. One special aspect of this work was that 111 premises were provided with hot water and handwashing facilities and this, together with such facilities obtained by the district inspectors, brought the total of additional food premises so provided to 205.

Food Borne Diseases

During 1952 there were 12 outbreaks of food poisoning notified to the department, and these outbreaks, on investigation, were found to involve a total of 34 persons. In addition, there were 44 single cases, making a total of 78 persons who suffered from this condition.

There is invariably a difference between the number of suspected cases of food poisoning notified and the number which are actually confirmed as food poisoning, and again this year, of the 78 notified cases, only 43 were bacteriologically confirmed as due to food poisoning organisms.

DISEASES INVESTIGATED

Food Poisoning

Outbreaks (i.e. more than one related case)

Total for year	Total Cases involved	Identified Agents	Cases Involved	Unidentified Agents	Cases Involved
12	34	6	17	6	17

Single Cases.

Total for Year	Identified Agents	Unidentified Agents
44	26	18

	Total Notified	Total Confirmed
Food poisoning ..	78	43
Dysentery ..	103	79
Para-typhoid ..	9	8
Typhoid ..	3	3

Clean Food Campaign

The clean food campaign was continued throughout the year ; it is encouraging to report a good response from members of the food trades and that considerable interest was shown by the general public.

It is now recognised that safer food results primarily from cleaner personal habits, but unfortunately personal habits rarely respond to legislation. The process is rather one of education and as in all such processes, there is the question of long and short-term programmes to attain the desired result.

The long-term plan would ensure that all children are taught the elements of food hygiene and, in this way, young people passing into the food trades would have a sound knowledge whereby cleanliness would be practised as a habit in all catering and other food handling employments.

This long-term programme must, of course, be backed by a short-term plan which would ensure that all people engaged in the food trades are trained in hygiene. It is also important that members of the public should observe food hygiene in their homes and object to unhygienic practices when they encounter them in shops and restaurants.

Progress in this class of work is slow because it involves altering many peoples' habits, but there is a gradual move in the right direction. During the year, attention was specially focused on preventing contamination of foodstuffs by animals, and in this connection it should be mentioned that more than 3,000 shopkeepers accepted and displayed health committee notices requesting that dogs should not be taken into premises where food is sold.

Many lectures and film shows were again given to food handlers and various adult and youth organisations. A useful and timely development in this connection were arrangements made by the chief sanitary inspector for lectures on hygiene given to those taking Licensed House Training Courses in Bristol.

It is interesting to compare the records of confirmed food poisoning cases which occurred during the last four years, as follows :—

Cases of Food Poisoning (Confirmed)

1949	..	348
1950	..	83
1951	..	49
1952	..	43

Whilst it is true that the only successful campaign towards cleaner and, therefore, safer food, is a continuous one, so far our efforts have only called general attention to the need for a higher standard of cleanliness in food handling. In view of this, it is planned to widen and accelerate a more detailed drive for cleaner food during 1953.

Typhoid and Para-Typhoid Fever

Three cases of typhoid fever in children were notified and confirmed. Investigations into these isolated cases do not always reveal the source of infection, but it is significant that two of the children involved had recently returned from abroad ; in the other case, the patient was taken ill whilst visiting another area outside the city.

In addition, eight cases of para-typhoid infection were confirmed. Investigations made into one small outbreak involved visiting and checking on a large number of people who had been contacts but fortunately no

further cases occurred. One of these para-typhoid cases was found to be living on premises used in connection with a greengrocery business, and this fact was reported to the medical officer of health, who took the necessary steps to safeguard food sold from these premises and so prevent any likely spread of infection.

Sampling of Rag Flock and Other Filling Materials

Under the provisions of the Rag Flock and Other Filling Materials Act 1951, the technique of testing these materials has been considerably extended. These tests call for special equipment, considered to be expensive having regard to the number of samples obtained. The public analyst's department in Bristol is not so equipped that this work may be undertaken fully, and this matter received consideration by the health committee during the year.

Reports were submitted on the whole question of facilities for sampling materials of this kind, and the position is to be reviewed from time to time.

Considerable increase in the number of samples of rag flock examined in the city is shown in the records, and special attention is now being paid to premises where such materials are stored and used.

Fertilisers and Feeding Stuffs

Experience has shown that a large number of shopkeepers are not aware of their obligations under the Fertilisers and Feeding Stuffs Act of 1926, and during the year an increased amount of sampling was, therefore, carried out at retail shops.

In all cases where there was failure to comply with legal requirements, shopkeepers were advised as to their obligations. A total of 64 informal and formal samples were submitted for analysis during the year and only in those cases where warnings were ignored was the matter reported with a view to legal proceedings.

Merchandise Marks Act

A special drive was made with regard to marking of imported tomatoes and a considerable number of shopkeepers were visited and advised with regard to this matter. Contact was also made with the Tomato and Cucumber Marketing Board and with the local secretary of the Retail Greengrocers' Association.

Foreign Matter in Food

Complaints received during the year regarding the presence of foreign matter in prepared foodstuffs, included the following :—

- glass in chocolate spread,
- insect and enamel chip in bread,
- wood splinter in sweet, and
- glass in milk bottles.

Each case was investigated and the necessary action taken to prevent recurrence. It should in fairness be stated that although some of these happenings are due to carelessness in food preparation, manufacturers complain that a great deal of foreign matter is found in bulk foodstuffs supplied to them, and particularly is this so in connection with some dried fruit supplies.

This matter was discussed by the Association of Municipal Corporations who made representations to the Ministry of Food with a view to a deputation being received.

Food Samples Reported by the Public Analyst as Unsatisfactory

A total of 2,524 informal and formal samples of food were submitted to the public analyst under the Food and Drugs Act 1938. This figure equals 5.7 per thousand population. Of this total, 81 samples were reported as not genuine, and the action taken in connection therewith is set out elsewhere in this report.

Legal Proceedings

Legal proceedings were taken regarding 18 samples of milk adulterated with water, but as only two of the churns sampled were properly labelled, the defence succeeded in a plea of insufficient proof as to ownership of 16 churns, in spite of the fact that farmers are required to label all churns under the Milk and Dairies Regulations. A fine of £20 was imposed, with £2 15s. costs in connection with the adulterated milk in the two churns which were properly labelled.

Further legal proceedings are pending with regard to other unsatisfactory milk samples and in connection with foreign bodies in foodstuffs.

A fine of £10 was imposed in connection with the sale of bottled milk which contained a slug and a fine of £5 resulted from the sale of a mouldy meat pie.

CITY WATER SUPPLY

Particulars required by Ministry of Health Circular.

1. Whether the water supply of the area and its several parts has been satisfactory. (a) in quality. (b) in quantity.	YES.
2. Where there is a piped supply, whether bacteriological examinations were made of the raw water and, where treatment is installed, of the water going into supply ; if so, how many and the results obtained ; the results of any chemical analysis.	Raw waters examined bacteriologically before treatment by Bristol Water Works Company. Raw water at Barrow before filtration—weekly. Raw water at Chelvey before chlorination—twice weekly—when pumping. Raw water at Litton before chlorination—weekly. After treatment found satisfactory.
3. Where the waters are liable to have plumbo-solvent action, the facts as to contamination by lead, including precautions taken, and number and results of analysis.	NOT LIABLE. Water is not liable to lead contamination and this is confirmed by weekly analysis of all city supplies.
4. Action in respect of any form of contamination.	On finding any trace of faecal pollution the matter is taken up with the appropriate authority immediately when further samples are taken until satisfactory results are obtained. Contamination after treatment has been negligible.
5. Particulars of the proportion of dwelling houses and the proportion supplied from public water mains. (a) direct to houses. (b) by means of standpipes.	(a) The whole of the population in the Bristol area is supplied by public water mains direct to houses with the exception of a few isolated premises in the rural suburbs when the supply is free from private wells and subject to a form of chlorination. These are gradually being reduced as mains supply is laid on. (b) Negligible.

(V) ATMOSPHERIC POLLUTION, NOISE NUISANCES AND OTHER MATTERS

The Cleaner Air Campaign

The subject of atmospheric pollution has received a great deal of attention during recent years. The Public Health Act and the relevant bye-law enable Bristol health committee to deal with smoke and grit nuisances which arise from industrial processes ; during the year 276 visits and observations were made by the district sanitary inspectors in an effort to keep down the level of pollution from these sources.

The problem of satisfactory fuel supplies and inevitable delays in connection with the replacement of boiler and other equipment created difficulties, but once again it can be said that the department received a fair measure of co-operation from offenders, many of whom would voluntarily replace obsolete equipment if new could be readily obtained.

The Bristol health committee has given every encouragement to the demand for a cleaner atmosphere and is always represented at the National Smoke Abatement Society's annual conferences. This year's discussions took place at Portsmouth, when many aspects of the smoke problem were dealt with. The observations of Dr. Percy Stocks, C.M.B., M.D., who spoke on " Air Pollution and Cancer of the Lung " stimulated much interest, and the following points were made :—

" Although we do not yet know the true nature of cancer, quite a number of chemical substances have been proved to be carcinogenic, that is to say, capable of producing cancer when continually or frequently in contact with certain parts of the body. People exposed to such substances repeatedly in the course of their occupations often developed cancer, and by suitable precautionary measures chimney sweeps, mulespinners in cotton mills and chrome workers have for long been protected from skin cancer. Similarly, handlers of certain luminous paints have to be protected against cancer of the bones, and chemical workers in certain processes of dye manufacture against cancer of the bladder. It was reasonable to suppose, therefore, that lung cancer could be induced by inhalation of some carcinogenic substance, which might come from coal gas, road dust, petrol fumes, smoke from domestic chimneys, industrial smoke, tobacco smoke, or some other source of air pollution.

" It is safe to say that the statistical facts we have extracted so far fit in rather well with the hypothesis that atmospheric pollution by domestic smoke is an important factor in the genesis of lung cancer, and that tobacco smoking is superimposed upon it as another important factor.

" Much of what I have put before you is no more than conjectural as yet, but it can be and will be tested by field research. If it proves to be a correct interpretation, then it will provide an additional incentive to the work of your Society. It will do more than that, however, because if the aggravating causes in cancer of the lung can be identified and then abated to some extent, the same might be done for other forms of cancer which are responsible for much suffering. Ten per cent of prevention would be much better than ten per cent improvement in the results of treatment. Tuberculosis has been gradually defeated in the last 80 years, not by spectacular destruction of the tubercle bacillus, by some wonder drug, but by abating one by one those social factors which intensify the doses of infection we are exposed to, and those nutritional factors which lower the defences of the body against the bacillus. Cancer may have to be defeated in the same

sort of way ; and I think that, in the long run the perseverance of your Society will contribute to that, as it has already undoubtedly contributed to the reduction of other diseases."

Bristol's New Gas Plant

For many years complaints have been received about grit, smoke and dust nuisance created by obsolete plant at the Stapleton Road Gas Works, and the year under review was no exception.

During the year preliminary work towards the establishment of a new gas-producing plant in this area was commenced, and many new features are to be incorporated which will prevent dust, grit and other nuisances.

This modernisation programme will give pleasure to many residents in the Glenfrorne Road area who have been long-suffering in this matter, and a report on further progress in this respect will be made in the next annual report.

Nuisance from Offensive Fumes

Reference was made in the last annual report to an unusual nuisance caused by foul odours emitted from a carbon black factory established in the Avonmouth area. The complaints about this unpleasant nuisance were received from a very wide area and urgent steps were taken by the management concerned to obtain and install plant to burn the offending fumes.

Many meetings were held during the year to examine progress and following a pilot test, the necessary equipment was ordered. This type of nuisance, which cannot be easily and quickly remedied, calls for a great deal of patience from all concerned, but the complainants have been kept fully informed of developments and realise that the firm is anxious to deal with this source of atmospheric pollution.

Noise Nuisances

The problem of noise and its effect upon public health has received increased attention in recent years. The records show that during 1952 complaints made to the department include the following :—

Excessive noise from factory premises operated during the night hours.

Disturbance of residents caused by lorries and churns in early morning dairy operations, and

Penetrating noise in a residential area from a rifle range which was inadequately sound proofed.

In each case a reduction in the noise level was secured by the action taken, and it is pleasing to record that the managements concerned co-operated very fully in their efforts to remove cause for complaint.

It must be recognised that much of the noise now experienced and tolerated can be avoided if more thought is given to the point when buildings are constructed and machinery, etc., installed. One still has, however, the human element to deal with in preventing noise from door slamming, shouting and so on, which takes place when others are trying to rest.

When presenting a paper on " Noise and the Public Health " to the Royal Sanitary Institute, an Exeter colleague recently prefaced his remarks with the following apt quotation :—

" Is it, O man, with such discordant notes . . .
Thou drownest nature's sweet and kindly voices
And jarrest the celestial harmonies ? . . ."

(LONGFELLOW)

Bristol Rovers Ground, Eastville—Sanitary Accommodation

The chief sanitary inspector reported to the health committee that complaints had been received regarding insanitary conditions at the Bristol Rovers Ground, resulting from inadequate and unsatisfactory sanitary arrangements. This matter had been discussed with the management on a number of occasions, but as little progress was made a further report was submitted giving details of the nuisance arising, particularly when large crowds were attending the matches.

Further action was taken by the service of a Public Health Act notice to deal with the immediate nuisance, and the general problem was discussed with the club surveyor who had been instructed to prepare plans for the erection of modern type and adequate sanitary conveniences as soon as practicable.

Redevelopment of Market Area

Complaints were received during the year regarding the littered condition of streets in the market area and the chief constable was approached with a view to action being taken against persons who deposit vegetable and other refuse in these streets and nearby open places. The city planning officer was requested to attend a meeting of the full health committee, so that the planning proposals for new markets could be discussed.

The city planning officer explained that the long-term proposals for markets were for a new site bounded by Temple Street, Narrow Plain, Passage Street and Temple Way, and that this area was approximately 12 acres in extent. It was not possible to proceed with new fruit and vegetable markets at the present time, but it was hoped to commence the construction of a new fish market within the next five years.

Following this meeting, the matter was reviewed with the estates committee, who clearly appreciated the problems arising from the overflow of market-type premises into streets adjoining and emphasised that every effort was being made to plan and develop new markets as soon as practicable.

Fouling of Footpaths by Dogs

Many complaints were received during the year regarding the fouling of footpaths by dogs.

It is surprising how many people in control of dogs will allow them to soil the public pavements, and the health committee requested the chief constable to consider the possibility of fixing notices in the city, drawing attention to the requirements of the bye-law operated by the police department.

The Pet Animals Act, 1951

This Act, which has been called the "Pet Animals Charter," came into operation on 1st April, 1952. The provisions include the licensing and inspection of pet shops and enable local authorities to specify conditions as to the accommodation for animals and reasonable precautions to be taken for their comfort and general welfare.

The administration of this Act was delegated to the health committee who decided that the following points should be included in the conditions of licence :—

- (1) Animals shall at all times be kept in accommodation suitable as respects size, temperature, lighting, ventilation and cleanliness.

- (2) Animals shall be adequately supplied with suitable food and drink and, so far as necessary, visited at suitable intervals.
- (3) No mammal shall be sold unweaned, or, if weaned, at an age at which it should not have been weaned.
- (4) No animals shall be displayed in a cage, hutch, box, or other receptacle in such a position as to expose it to interference or annoyance by persons or animals.
- (5) Animals shall not be handed to customers in unsuitable containers.
- (6) No animal which is suffering from or could reasonably be suspected of having come into contact with any other animal suffering from any infectious disease shall be brought or kept on the premises, unless it is properly isolated from the other animals therein.
- (7) Animals and stock shall not be placed or kept in or outside the shop so as to render ingress or egress difficult in case of fire or other emergency.

The licensee shall ensure that a responsible person shall at all times be in or within a reasonable distance from the premises for the purpose of giving warning and taking other necessary steps in the event of fire or other emergency. In the case of lock-up premises, the licensee shall appoint a responsible person residing within a reasonable distance of the premises to have custody of the key outside business hours. The name and address of such person shall be displayed in legible characters on the front door or windows of the premises and be notified to the local fire brigade. A supply of water and sand and/or an efficient fire extinguisher shall always be available on the premises.

- (8) Where animals are kept in cages, hutches, boxes, or other receptacles placed on top of other cages, hutches, boxes or other receptacles, effective means shall be provided for preventing water-food, or other droppings falling on to or contaminating the animals or other surrounds which are underneath.
- (9) All necessary precautions shall be taken to prevent the introduction or harbourage of any rodents, insects and any pests.
- (10) All manure and sweepings shall be stored in suitably covered containers until removed from the premises.
- (11) All refuse containers shall be adequately cleansed from time to time and shall be emptied at frequent intervals so as to prevent nuisance.
- (12) All animal food shall be so stored as to preserve the quality thereof and allow easy cleansing of the premises and the food containers.
- (13) For the purpose of these conditions the expression "infectious disease" shall include any infectious or contagious disease or condition and the expression "rodents" shall not include rodents kept in confinement for sale as pets.

During the year 22 applications for licences were received and following an inspection, the chief sanitary inspector recommended that 19 licences should be issued and 3 refused.

It can definitely be stated that conditions in the city's pet shops have improved as a result of this annual licensing procedure ; in addition, occasional visits are made by the district sanitary inspectors to all such premises during the year.

Registration of Hairdressers and Premises

Powers obtained in the Bristol Corporation Act 1950 enabled the health committee to require registration of hairdressers and the premises in which this trade is carried on. Registration in itself would be of little value without appropriate byelaws for the control of conditions in this class of premises. During the year, considerable progress was made towards the formulation of bye-laws so as to secure the cleanliness of registered premises, together with the cleanliness of persons employed therein, and instruments, towels, material and equipment used.

Common Lodging Houses

In keeping with modern trends and improvements in the standards of common lodging houses, a new descriptive expression has been coined both for the "casual" and the "doss-house." The accommodation and the inmates are now referred to as "Reception Centres for persons without a settled way of life."

A report recently published by the National Assistance Board to the Minister of National Insurance opens with the following points :—

"It is wrong to suppose that all or even many of the persons who use reception centres are tramps according to the popular and rather romanticised picture—the unkempt but picturesque figure to be seen walking in the countryside with his meagre belongings slung over his shoulder, or trundling a battered perambulator in which all his worldly goods are deposited: living and enjoying an open-air life free from responsibility; begging a meal here and doing an odd job for one there; and leaving a trail of cabalistic signs to beckon or warn others who follow. There are still tramps who trudge about the country but there is little that is romantic in them or in the lives they lead, and they are now very few."

These remarks adequately describe the change of character and attitude of those who frequent common lodging houses these days. The types of persons now using this form of accommodation can be classified into three main groups :—

- (1) The older people who are usually "residents."
- (2) The itinerant labourer, and
- (3) Those with no home ties.

It is worthy of note that the users of common lodging houses, now, are mainly men. The decrease in the number of women using lodging houses is probably accounted for by the degree of employment available of a semi-skilled or unskilled character. The itinerant family is practically non-existent.

Bristol, in pre-war days, had a miniature township of common lodging houses in the Great George and Great Ann Street areas but the unsatisfactory lodging houses were dealt with by the health and housing departments in a series of clearance area actions. The remaining lodging houses are principally run by organisations such as the Salvation Army and Church Army. The corporation itself has a highly satisfactory lodging house which is controlled by a manager employed by the housing committee.

The duties of the public health department include the registration of lodging houses, regular inspection of rooms, sanitary accommodation, adequacy of ventilation and lighting, control of infectious or verminous conditions, and determination of the numbers to be allowed to occupy the various parts of lodging houses.

Twenty visits of inspection were made to these premises during 1952, and it must be said that the attitude of all keepers of common lodging houses is helpful and praiseworthy.

Reference to the number of men who attended the disinfecting station during 1952, viz. 220 in all, for vermin repression, baths and treatment, is indicative of the desire to be made free and to remain free from infestation. A high percentage of the 220 men was drawn from common lodging houses, and in every case the men submitted to the treatment either voluntarily or as the result of persuasion.

Industrial Better Housekeeping Week

The Royal Society for the Prevention of Accidents again organised a "Cleaning-up Week" for British industry. The Bristol health committee were asked to assist in this object which is to enlist the support of all in securing tidiness and cleanliness in workshops and factories.

The public health department has a varying degree of responsibility in connection with the health of workers in factories and workplaces. The extent of responsibility is dependent upon the type of factory and the type of process carried on.

The health, welfare and safety provisions of the Factories Act, and the legislation dealing with workplaces in the Public Health Act, are designed to promote healthy environments and the prevention of accidents.

Whilst the emphasis in the above campaign is on prevention of accidents, one has to realise that injury to, or impairment of health, due to insanitary conditions or bad practices in factories and workplaces, can be a great and lasting danger to the health and well-being of workers.

In supporting this campaign, the Bristol health committee emphasised that :—

A clean, well ordered and tidy factory, run by health-conscious personnel, is a place which will have the lowest illness and accident rates. It is recognised that illness in industrial workers, often has its source in dirty, badly organised premises. Accumulations of dust and dirt harbour disease germs, insect pests and rodents, all capable of conveying and transmitting disease. Cleanliness provides no home for pests—where there is dirt there is danger.

Cleanliness of windows, walls and floors allows health giving rays of the sun to penetrate into workroom and permits reflected sunlight to pass to all parts of rooms.

Clealiness of lighting equipment is of paramount importance if full benefit is to be derived. Work can be clearly seen, good lighting avoids accidents, good lighting prevents eye strain and physical weariness.

The temporary storage of material in passages and gangways should be avoided as far as possible ; many firms now paint white lines on floors near machines, etc., indicating that these areas must be kept free to avoid accidents.

Cleaning of walls, floors, etc., should involve a wetting process. This will avoid the undue movement of dirt, dust and finely particled waste matter in workrooms.

All machinery and equipment should be of a type which can be readily and easily cleaned. Wherever dirt can remain unseen, danger lurks. Cleanliness in sanitary conveniences should be of a high order. Clean, well-maintained conveniences will ensure their use, and thus prevent indiscriminate contamination of the factory premises.

Refresher Course for Sanitary Inspectors

The improvement and extension of the environmental health service calls for the constant review and study of all its aspects. Officers concerned with public health work, though qualified for the position they hold, realise that if they are to keep abreast of modern standards, they must make con-

tinuous study of new developments, new scientific detail and increased or amended legislation.

It was with this in mind that the medical officer of health decided to promote a refresher course for sanitary inspectors and the health committee received the suggestion with appreciative comments. A three-day course was, therefore, arranged in conjunction with the University of Bristol and invitations were sent to other local authorities within a reasonable distance of the city inviting applications for attendance at this course.

The refresher course was held on 14th, 15th and 16th May, 1952, and the lectures given included the following subjects :—

The Environmental Health Service,
Diseases of Animals Act,
Latest Developments in Pest Control,
Water Supplies,
Pet Animals Act, and
The Sanitary Inspectors' Role in Social Welfare.

Visits of inspection were made to the new Chew Valley Reservoir in course of construction, and a demonstration in the use of new laboratory equipment was given by the public analyst at Canynge Hall, Clifton.

This successful course of lectures was appreciated by all concerned, and the thanks of those privileged to attend were suitably expressed.

The Sanitary Inspector and Civil Defence

From experience gained in the last war, the chief sanitary inspector's department is very conscious that public health measures play an important part in civil defence. One of the primary objects of civil defence is to prevent casualties—casualties not only resulting directly from enemy action but as the result of preventable illness and disease. It is obvious that even well organised civil defence arrangements can be nullified by illness, epidemics and food poisoning attributable to non-observance of elementary hygiene and sanitation.

Each new war brings with it new weapons and methods of attack, each more disastrous in its effect than those used in previous wars, and although it is impossible to assess the destruction and disease which may result from future wars, it is our duty to be as prepared as possible.

There has been a great deal written and taught about the chances of atomic and chemical attack, and it is suggested that biological warfare may be attempted in any future conflict. One of the essential factors in abating the latter danger is strict attention to personal hygiene and maintenance of as high a sanitation standard as possible.

During the year two sanitary inspectors attended a civil defence basic training course for instructors and this was followed by additional instruction at the Civil Defence School, Falfield.

The civil defence training thus received has enabled the department to take an active part in training civil defence volunteers in hygiene, sanitation and food preparation as visualised under war-time conditions. Many talks have already been given to civil defence and other organisations ; it is hoped to increase the scope of this instruction during 1953.

In December, the civil defence general instructor represented the medical officer of health's department on "Exercise Quail." This exercise was conducted jointly by the Ministry of Food and the Home Office, Civil Defence Departments, South Western Region. The object of the exercise was to study the problems of emergency feeding and the care and shelter of the homeless which might be expected to arise as a result of a large-scale raid on Bristol.

(vi) RAT DESTRUCTION: DISINFECTION AND DISINFESTATION

Rodent Control

The rat (repression) officer reports a very successful campaign against rats and mice in the city and dock areas and states that many large colonies which had for years persisted throughout these areas, have now been eradicated. In the dock areas this work has resulted in many sheds and other premises being completely cleared of rats and mice and thousands of tons of foodstuffs have been stored and removed without the slightest sign of damage. It is significant that during the year the number of rats and mice recovered from the docks is the lowest on record, and the general opinion is that the present condition of the docks is the cleanest for the last forty years.

During the year a total of 2,563 complaints were received, 1,861 being in connection with rats and 702 in connection with mice. This was an increase of 285 over last year. Together with the 242 cases which were brought forward as incompletely dealt with from the previous year, a total of 2,805 cases were the subject of action during 1952. The occupiers of 2,439 premises notified the department of rat or mice infestation and appropriate action was taken; in 124 instances rodent infestation was discovered as a result of inspection and the attention of the occupiers of these premises was called to their obligations under the Prevention of Damage by Pests Act.

Private and corporation tips used for the disposal of rubbish and other materials were systematically treated and are all under control. The offensive trade premises in the St. Philips Marsh area remain satisfactory, and, apart from these premises, no complaint of common rat has been received from private dwellings in this area.

All waterways throughout the city have been regularly inspected and where necessary action has been taken to deal with any infestation arising. In 55 cases defective drains were found to be badly rat infested.

A number of rats from various parts of the city has been regularly submitted to the department of preventive medicine for examination for plague and disease; the results of these examinations have been negative.

There was a slight decrease in the number of wasp complaints dealt with during 1952, the number being 72 against 99 for the previous year. This is probably the result of advice given by the department to occupiers on the best methods of dealing with nests found in gardens or outside walls.

The clerk—investigators inspected a total of 23,149 premises during the year, as follows :—

Business Premises	..	1,826
Dwelling Houses	..	21,023
Local Authority ..	..	290

During these visits, 119 infestations were discovered and it is worthy of mention that one of the main results of these inspections was that it enabled rat operators to carry out 49 block control treatments in affected areas.

Visits were made to 380 poultry keepers and leaflets were left which gave advice on the keeping and control of poultry, ducks, etc., so as to prevent rat harbourage.

Rat Repression

No. of Complaints of Rats or Mice		Dealt with by Corporation	Dealt with by Occupier	No action required	Out-standing
Out-standing. 1951	Re-ceived. 1952				
242	2,563	2,402	43	178	182
Type of Infestation complained of			Bodies Recovered from Premises		
Rats		Mice	Black Rat	Brown Rat	Mice
1,861		702	194	309	126
Dock area :—					
Bodies Recovered :—		Rattus rattus (black)	Rattus norvegicus (brown)	Mice	
		175	375	73	

Rat Repression—Summary of Work Done During 1952

1951					1952			
Business Houses	Houses	Other	Total		Business Houses	Houses	Other	Total
108	82	32	222	Complaints incompletely dealt with b/forward Complaints received	111	85	46	242
720	1,300	258	2,278		889	1,381	293	2,563
828	1,382	290	2,500		1,000	1,466	339	2,805
				Remedial action :—				
				Infestation cleared :—				
695	1,111	236	2,042	By Corporation	885	1,200	317	2,402
10	48	1	59	By occupiers	2	41	—	43
12	138	7	157	No action required	25	152	1	178
111	85	46	242	Incompletion at end of year carried forward	88	73	21	182
828	1,382	290	2,500		1,000	1,466	339	2,805

Rat Repression—Summary of Work Done During 1952

1951				1952			
Avon-mouth	Bristol	Portis-head	Total	Avon-mouth	Bristol	Portis-head	Total
1,329	3	148	1,480				
351	3	34	388				
—	—	—	—				
647	2	59	708				
67	—	13	80				

The year 1952 saw the introduction to this country of the new rodenticide "Warfarin." The early experiments initiated by the Ministry of Agriculture and Fisheries, Infestation Control Branch, and carried out by the local authorities of certain large towns and cities, did not at first appear very satisfactory owing to varied results. A further analysis of the records, however, revealed astonishing success in those premises which were infested with the brown rat, and a careful inspection several weeks after treatment, failed to show any signs of re-infestation. The rat officer therefore decided to use this material on a large scale. This entailed new planning and recording as exact and full records were necessary to obtain a complete picture on the efficiency of this new poison. After six months' widespread application, it became obvious that we now have a rodenticide which is far more powerful and effective than anything previously employed. After only one treatment by this material, hundreds of premises were reported clear of both rats and mice; large colonies of rats were completely destroyed and blocks of premises over a large area were cleared of infestation.

The use of "Warfarin" has been more than justified by these results, and there is no doubt that given proper application and careful planning, many large areas can be cleared of both rats and mice with this new substance.

The two half-yearly maintenance treatments of the city sewers were again carried out; the sewer system includes approximately 6,000 manholes, and of this number, 4,600 were treated with the following results :—

Number of manholes showing prebait take .. 3,083
 Number of manholes showing poison take .. 2,766

Twenty per cent of the manholes which in previous years have been found free of rats were again tested to ascertain whether infestation had taken place. The permanent baiting points installed under the supervision of the rat officer in 1951, again proved of value in ascertaining the degree of infestation existing in the various sewer sections.

Prevention of Damage by Pests Act 1949—Bristol and District Workable Area

From time to time meetings are convened by the Ministry of Agriculture and Fisheries for those authorities within the Bristol district which constitute a workable area.

During October, a successful meeting, attended by many local authority representatives and their officers responsible for the work of rodent control, was held at the Bristol Council House.

Technical officers of the Ministry of Agriculture and Fisheries gave scientific details of the new poisons being so successfully used and experiments now under way, particularly in connection with the control of sewer rats.

These occasional meetings are appreciated by local authorities and their officers in the fight against rats, mice and other pests.

Disinfection and Disinfestation

The disinfecting station at Feeder Road has again served a very useful function in the public health service and the staff have been most helpful in coping with emergency arrangements from time to time.

During the year, an extension was built at the station to accommodate a small Washington-Lyons Steam Disinfector. This equipment will deal with the sterilisation of articles used in connection with the nursing service under the National Health Scheme, and further details of this addition to the disinfecting facilities will be given in the next annual report.

Disinfections, Drain Tests, etc.

1951		1952
4,404	Premises disinfected	3,165
75,109	Articles disinfected	71,953
8,444	Articles disinfested	10,369
4,548	Articles destroyed	3,743
400	Vermin repression—by spraying	364
173	Vermin baths—Men	306
—	Women	2
514	Disinfections for Hospitals and Nursing Homes ..	312
337	Public Library books collected and disinfected ..	537
18	Private Library books collected and disinfected ..	32
66,220	Foodstuffs, etc., destroyed—Canned food	79,824
9,732 lbs.	Other foodstuffs	9,288 lbs.
1,129	Food Premises visited	1,130
93	Drain tests	50
615	Other work	714

Crickets on the Hearths

On a sultry afternoon in August 1952, a telephone call was received from a local newspaper office that reports had been made by residents of Ilchester Crescent, Ilchester Road and Brooklyn Road, Bedminster Down, regarding a serious infestation of crickets. A visit was made to this area the same evening by the chief sanitary inspector and members of his staff, when it was found that some 40 houses were seriously infested with crickets, whilst some 80 other occupants complained of their presence but to a lesser degree.

A thorough investigation revealed that about five acres of land at the rear of the houses were heavily infested with the pest and as a preliminary measure, arrangements were made to spray, with a high-grade disinfectant, a barrier area between the houses and fields. In addition, 45 houses were treated externally near the under floor ventilators, etc., so as to retard the ingress of the crickets which had, in some cases, invaded many rooms in the houses. The extent of the infestation will be appreciated when it is known that occupiers were destroying as many as 100 of these pests per day; the position had become intolerable, although no complaint had previously been received by the health department.

Near the area involved and adjacent to the houses are two tips and a brickworks quarry. Whilst no evidence of heavy infestation was found in these places, nests of crickets could be seen behind loose areas of the quarry face.

The following measures were undertaken to bring about a cessation of the plague :—

1. The rough land at the rear of the houses was sprayed with tip dressing.
2. A strip of land 10 feet wide from house fencings was cleared of vegetation and pest life by being sterilised with flame guns.
3. The latter area was then sprayed with disinfectant.
4. The two tips and brickworks were treated with tip dressing, mainly as a precautionary measure.

It was interesting to note during this work that the killing time was a maximum of two minutes on contact but, in addition, the disinfectant used possessed a residual effect to deal with pests not actually contacted during the initial spraying.

An account of this kind may seem little in the life of a large city, but it was of great concern to the householders affected.

(VII) FACTORIES ACTS, 1937 and 1948**1.—Inspection of Factories**

Premises (1)	Number on Register (3)	Number of		
		Inspection (4)	Written notices (5)	Occupiers prosecuted (6)
(i) Factories in which Sections 1, 2, 3, 4, and 6 are to be enforced by Local Authorities	142	277	41	—
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	753	1,171	69	—
(iii) Other Premises in which Section 7 is enforced by the Local Authority (excluding out-workers' premises)	105	—	—	—
Total ..	1,000	1,348	110	—

2.—Cases in which defects were found

Particulars (1)	No. of cases in which defects were found				No. of cases in which prosecutions were instituted (7)
	Found (3)	Remedied (4)	To H.M. Inspector (5)	By H.M. Inspector (6)	
Want of cleanliness (S.1)	21	15	—	10	—
Overcrowding (S.2)	—	—	—	—	—
Unreasonable temperature (S.3) ..	—	—	—	1	—
Inadequate Ventilation (S.4) ..	2	1	—	—	—
Ineffective drainage of floors (S.6) ..	—	—	—	—	—
Sanitary Conveniences (S.7)—					
(a) Insufficient	20	5	—	13	—
(b) Unsuitable or defective ..	130	63	—	56	—
(c) Not separate for sexes ..	2	1	—	4	—
Other offences against the Act (not including offences relating to Outwork)	2	1	—	1	—
Total ..	177	86	—	85	—

Outworkers. Lists of Outworkers received during 1952.

Description of Homework	No. of outworkers	
	February	August
Making of wearing apparel	30	21

II ADMINISTRATION OF THE SHOPS AND KINDRED LEGISLATION

By E. G. H. Spencer

(*Chief Inspector, Shops and Young Persons (Employment) Acts*)

Shops Act 1950

General Administration

Members of this Inspectorate visited 6,016 retail establishments during 1952 and 306 wholesale shops or warehouses. These initial visits disclosed 764 infringements (see detailed summary) and 1,171 re-visits were necessary before these matters were adjusted. Legal proceedings were initiated against five traders, all of whom had been warned previously and written warnings were issued to 16 other traders. The remainder were cleared by verbal cautions.

Winter Closing Hours

The emergency regulations which required shops to close earlier during the months of November to March were repealed by Order in Council in October, 1952. The Order aroused considerable comment in the National Press and a Prayer was raised in Parliament seeking its annulment. This was defeated and so far there has been little indication of later closing, because of this revocation.

Exemptions in Respect of Retail Trade at Exhibitions

The following exhibitions were granted an exemption from the closing provisions of the Act :—

- (1) The Bristol Horticultural and Chrysanthemum Society's Annual Exhibition, at the Drill Hall, Old Market Street.
- (2) The City and County of Bristol Horticultural Show, held on Durdham Downs.

In addition to these exhibitions, five other applications for exemption orders were considered by the Health Committee, but no order was made. Four of these were in respect of proposed "Ideal Homes Exhibitions" and one from a retailer.

Complaints

The number of complaints shows an upward trend and would appear to be a reflection of the economic situation. Two-thirds of the total number received during 1952, alleged breaches of the closing regulations and the balance concerned assistants' working conditions.

Observation Patrols

These patrols, which are carried out on early closing day and when necessary during the evenings or on Sundays, were continued throughout the year.

The Inspectors often find assistants working on their usual half-holiday and are thus able to secure an alternative half-holiday. In many cases, but for the patrol, this would have been forfeited.

New Legislation

The Home Office has circulated proposals for the implementation of certain recommendations made by the "Gowers Committee" and has invited observations thereon. The proposals are mainly confined to strengthening existing Health and Welfare provisions and extending them to premises at present outside the scope of the Shops Act. It is suggested that specific provisions shall apply initially to the following places of employment : shops, offices, catering establishments, theatres, cinemas and music halls, railways and certain road transport premises, agriculture and forestry, and dental mechanics' workrooms.

Other Enactments

(a) *The Young Persons Employment Act 1938*

97 Visits and 3 Re-Visits were made to premises to which this Act applies. 10 infringements were adjusted following verbal cautions.

(b) *The Sunday Entertainment Act 1932*

All cinemas that open on Sunday were visited at quarterly intervals. Four verbal cautions were given in respect of failure to keep the prescribed records and one for failing to allow compensatory holiday.

(c) *Employment of Women, Young Persons, and Children's Act 1920*

This Act is now included in the delegation of the Health Committee and the Shops Inspectors have been appointed as authorised officers.

This enactment fixes the minimum age for admission of Children to industrial employment and concerns the night work of young persons and women employed in Industry. Certain of the provisions are administered by H.M. Inspector of Factories—others by inspectors appointed under the Mines & Quarries Acts. The remaining provisions being enforced by officers of the Local Authority.

Staff. The present staff consists of :—

Chief Inspector (M)	1
Inspectors (M)	2
Inspectors (F)	1
Clerk (M)	1
Total	5

Legislation in Other Countries

The following table of comparable legislation in certain other countries is submitted in the hope that it will prove of interest.

It is reproduced from a document prepared by the International Federation of Commercial, Clerical and Technical Employees' section of the International Confederation of Free Trade Unions, and supplied to me by the Union of Shop, Distributive and Allied Workers, an affiliated organisation of the I.F.C.C.T.E.

INTERNATIONAL FEDERATION OF COMMERCIAL CLERICAL AND TECHNICAL EMPLOYEES

Shop Closing Hours

The attached table has been compiled in a form which enables those interested in the subject to see at a glance the main features governing the hours of closing of shops and to make comparisons between the situation as laid down by National Law or Local Orders or prevailing in actual practice in the 14 countries which supplied information.

In a survey grouped in columns as here presented, it is not possible to include all minute details and exemptions from general rules; the table, however, gives a general and comprehensive picture of the actual situation. When studying the table the following observations should be kept in mind:

EXEMPTIONS OFFICIAL CLOSING HOURS. In practically all countries exemptions are provided for chemists and pharmacies while in many countries it is allowed for shops or stalls or kiosks selling bread, confectionery, refreshments, ice cream, flowers, tobacco and newspapers to keep open after the official closing hours, the time allowed ranging from 30 minutes to 4 or 5 hours. The laws of some countries also provide special exemptions for shops in holiday resorts, railway stations, etc.

EXEMPTIONS CLOSING ON SUNDAYS AND PUBLIC HOLIDAYS. The table contains the main exemptions to the general rule that the Sunday is observed as a full rest-day.

GENERAL OBSERVATIONS. This column contains some observations of general interest which were contained in the replies to our questionnaire.

W. SPIEKMAN,
Secretary.

Amsterdam, February, 1952.

TABLE OF COMPARATIVE SHOPS' ACTS LEGISLATION IN CERTAIN FOREIGN COUNTRIES

Abbreviations: LA—Local Authorities
CA—Collective Agreement

Country	Nat. Law	Orders Local Authorities	Closing Hour		No. of Days	Early Closing			Other Weekdays	Exemptions Closing on Sundays and Public Holidays	Time Allowed for Serving Customers after Closing Hour	Control	Penalties	Observations
			By Law	Actual Practice		Saturdays								
						Nat. Law	General Practice	Coll. Agreement						
Austria	Yes	L.A. fix hours	6 p.m.		6	—		2 p.m. in some provinces	1 or 2 p.m. in most provinces by C.A.		Until 20 mins. after closing hour (coll. agr.)	Police	Fines	
Belgium	No			6 p.m. large shops. 7 p.m. chemists 8 p.m. foodstuffs by C.A.						6 times per year for general purposes (particularly in holiday resorts). The Sunday Rest Law allows shops selling foodstuffs, tobacco, flowers, etc. to keep open from 8 a.m. to 12 noon; other shops may also keep open during these hours. This latter provision may be annulled by Royal Decree, which has been done for Brussels, Antwerp, Liege and Ghent.		Inspection Authorities	Fines	Employers strongly oppose regulation of closing hours by law. The Sunday-Rest Act only covers shops employing assistants.
Denmark	Yes		5.30 p.m. 8 p.m.		4 1	2 p.m.	1 p.m. in most provincial cities (voluntary arrangements).			Bakeries, milkshops from 6 to 10 a.m. Florists from 6 a.m. to 4 p.m. Ice cream shops till 10 p.m.	Until 15 mins. after closing hour.	Police	Fines both for shopkeepers & customers.	Employers, employees and the public are satisfied with present arrangements.
Finland	Yes		6 p.m. L.A. may fix 7 p.m. from June to Sept. and earlier than 6 p.m. in summer.	5 p.m.	5	5 p.m.	4 p.m. 3 p.m. in many towns during summer season.			L.A. may allow sale bread, milk, flowers during maximum three hours.	Customers on premises.	Police	Fines	
France	No			6.30 p.m. shops not selling foodstuffs with many exceptions and variations. Shops selling foodstuffs 7.30 p.m. or 8 p.m.	5	—	One half day, or see column other weekdays.	One full day, retail food trade excepted	Shops selling foodstuffs	Customers on premises.	Inspection Authorities.	Fines	Employers are opposed to legal regulation of closing hours.	
Germany	Yes		7 p.m.	6 p.m. general in larger towns.	6	—	2 p.m. in many cases but not general (by local arrangements).		6 to 10 times per year.	Customers on premises may be served.	Inspection Authorities.	From fines to imprisonment.	A new law on shop closing hours, providing a half-day off on a weekday, in addition to the Sunday rest, is expected to be submitted to the Federal Parliament in the course of 1952.	
Great Britain	Yes	L.A. fix earlier evening closing hours & special closing times on certain specified occasions.	8 p.m. 9 p.m. or 6 p.m. 7.30 p.m. during winter months.	5 or 6 p.m. 6.30 or 7 p.m.	4 1 4 1	1 p.m.	12.30 p.m. or 1 p.m. in a number of establishments & in certain areas including co-operatives. See column "other weekdays."	12.30 p.m. to 1 p.m.	Shops selling confectionery, fruit, milk, flowers, tobacco, newspapers, etc., subject to certain conditions. Special provision is made for traders observing the Jewish Sabbath, who may remain open on Sunday up to 2 p.m. or in certain cases even after that hour.	Customers on premises at closing hour.	L.A. by system of Shops Act Inspectors.	Fines	Present legislation is admitted to be out of date; new legislation in preparation. A Government Committee some time ago recommended to fix general closing at 7 p.m. on four days and 8 p.m. on one day with power to L.A. to fix earlier hours by order. Union demands general closing hour at 6 p.m. with power given to L.A.s to fix earlier hours.	
Israel	No	L.A. after consultation of bodies concerned.		7 p.m. (see column "Observations").	6	—						Inspection Authorities.	Fines	In general shops are open from 8 a.m. to 1 p.m. and from 4 p.m. to 7 p.m.
Italy	Yes	L.A. fix hours after consultation of employers' and shop assistants organisations.				—			Shops selling foodstuffs, flowers, etc., may be kept open Sunday afternoons.			Police	From fines to temporary closing of shop.	
Luxemburg	Yes	7 p.m.	Oct./Mar. 8 p.m. Apr./Sept.			—			Six times per year			Police	From fines to imprisonment.	
Netherlands	Yes		6 p.m. L.A. may allow closing at 10 p.m. one day per week.		6		1 p.m. (by L.A.) or see column "other weekdays."	L.A. may fix closing hour at 1 p.m. on Monday, Tuesday or Wednesday.		Until 30 mins. after closing hour.	Police and Inspection Authorities.	From fines to custody	The new law is expected to come into force in 1952. Groups of shops may be closed on 12 weekdays for holiday purposes by L.A.	
Norway	Yes	L.A. fix hours.		5 p.m. 6 or 7 p.m.	4 1	—	3 or 4 p.m.			Until 30 mins. after closing hour.	Police	Fines		
Sweden	Yes		7 p.m.	6 p.m. general by voluntary arrangements.	6	—	4 or 5 p.m. (by L.A.).		Food, drink, fruit, flower shops from 8 to 10 a.m.	Customers on premises at closing hour.	Inspection Authorities.	Fines	Law is strictly observed in all parts of the country. The union of shop assistants is represented on official inspection service.	
Switzerland	No	In some Cantons and towns.		In towns 6.30 p.m.; in rural districts 7 p.m.		—	In towns generally 5 p.m. In Basel 6 p.m.	Dept. Stores Monday morning until 1 p.m. Other shops do not close but staff has half a day off by rotation		Customers on premises.	Inspection authorities and police.	Fines		

INTERNATIONAL CONFERENCE
of the Trade Section of
COMMERCIAL AND CLERICAL EMPLOYEES IN COMMERCE
AND INDUSTRY

Hamburg, 23rd and 24th October, 1950

The following Resolution was adopted unanimously :—

HOURS OF CLOSING AND THE FIVE DAY WORKING
WEEK IN RETAIL TRADE

This Conference reaffirms the objective of the International as being a forty hour five day week with two consecutive rest days for all workers in the distributive trades.

It recognises, however, that where this objective cannot be achieved immediately it is necessary to define the measures which should be taken as immediate steps on the regulations of the hours of closing and the weekly rest-periods.

Accordingly the Conference declares :—

1. That a progressive limitation of working hours of shop workers cannot be achieved without the legal limitation of the closing hours of shops.
2. That such legal limitation should aim at a general closing hour in the evening of six o'clock (18 hours) with provisions (where circumstances permit) for earlier closing hours to be fixed by local authorities after consultation with the organisations of workers and employers concerned.
3. That where, in certain trades (e.g. pharmacies) it is required as a public necessity to fix a legal closing hour later than six o'clock in the evening, such later hour shall be determined only after consultation and agreement with the organisations of workers and employers concerned.
4. That shop workers shall be entitled by legal enactment to one half holiday in each week commencing not later than 1 p.m. (13 hours).
5. That, as far as possible, this half holiday should fall on the Saturday, thus giving shop workers the benefit of the long week-end necessary both from recreational and social standpoints.
6. That, in cases where only by reason of customers' needs, it is not possible to fix the weekly half-holiday on a Saturday, it shall be legally obligatory upon the local authority to fix one half-day in the week on which all shops within the area shall close.

This Conference reiterates that those proposals must not be regarded as final objectives in themselves but only as steps towards the ultimate realisation of the 40 hour working week with two consecutive rest days.

It accordingly urges that every possible step should be taken through the machinery of the International Labour Organisation to secure the earliest and fullest examination of this problem both as regards the ultimate objective and the intermediate measures in order that a draft Convention may be prepared with a view to legislative measures being adopted by all the Governments concerned in the direction indicated.

SUMMARY OF VISITS

1951		1952
No.	SHOPS ACT 1950	
7,310	<i>Visits :</i>	
355	Retail	6,016
	Wholesale	306
1,420	<i>Revisits :</i>	
76	Retail	1,136
	Wholesale	35
842	<i>Infringements :</i>	
88	Failure to exhibit notices	656
17	Half-Holiday and compensatory holiday	63
61	Hours of Young Persons	8
	Meal Intervals	37
991	<i>Verbal Warnings</i>	743
16	<i>Warning Letters</i>	16
1	<i>Legal Proceedings</i>	5
171	Assistants Facilities—Referred to C.S.I. (Section 38) ..	307
	SUNDAY ENTERTAINMENT ACT—CINEMAS	
80	Visits	77
6	Revisits	31
1	Infringements (holidays)	1
3	(records)	4
4	Verbal Warnings	5
—	Reported to Licensing Justices	—
	YOUNG PERSONS (EMPLOYMENT) ACT 1938	
93	Visits	97
8	Revisits	3
	<i>Infringements</i>	
5	(1) Night emp. & Hours	3
7	(2) Records	4
2	(3) Meal Intervals	—
—	(4) Half-day & compensatory holiday	3
3	Verbal Warnings	10
1	Warning Letters	—
	INSPECTORIAL STAFF—Work outside normal office hours	
25	Evenings	89
10	Sundays	13

(III) THE REPORT OF THE PUBLIC ANALYST AND OFFICIAL AGRICULTURAL ANALYST FOR THE CITY AND COUNTY OF BRISTOL FOR THE YEAR 1952

(incorporating the Work on behalf of the County of Gloucester for the same period)

By E. G. Whittle, B.Sc. (Lond.), F.R.I.C.

Staff for the Year 1952

<i>Public Analyst</i>	.. ..	E. G. Whittle, B.Sc. (Lond.), F.R.I.C.
<i>Additional Public Analyst</i>		I. Dembrey, B.Sc. (Bristol), F.R.I.C.
<i>First Assistant</i>	.. ..	G. G. Fisher, B.Sc. (Birm.), A.R.I.C.
<i>Second Assistant</i>	.. ..	A. B. Naish, A.R.I.C.
<i>Third Assistant</i>	.. ..	J. Smyth, B.Sc. (Bristol).
<i>Fourth Assistant</i>	.. ..	Miss E. E. Wilks, B.Sc. (London).
<i>Senior Spectroscopist</i>	.. ..	A. C. Candler, M.A. (Cantab.), F.Inst. P.
<i>Assistant Spectroscopist</i>	.. ..	N. J. Atherton.
<i>Senior Technician</i>	.. ..	C. R. Turner
<i>Chlorination Officer</i>	.. ..	R. C. M. Putnam.
<i>Laboratory Assistants</i>	.. ..	J. A. Pickard, K. J. Gough, E. A. Baker, G. J. Dickes, M. L. Passey, A. P. Long, J. E. Davies, D. Whittle.
<i>Secretary</i>	.. ..	Mrs. M. M. Manning.
<i>Cleaning Staff</i>	.. ..	Mrs. N. Budd. Mrs. G. Wren (part-time).

Introduction

The year 1952 has been the busiest yet in the history of the Laboratory. The grand total of examinations was 6,637 and included 1,573 on behalf of the County of Gloucester. This represents an increase of over 2,200 as compared with 1951 and is a wonderful achievement reflecting great credit upon the Staff, for without their ever willing co-operation and effort such achievement would not have been possible.

It would be invidious to single out individuals for mention, but I pay tribute to the Additional Analyst, Mr. Dembrey, to my secretary Mrs. Manning and to the senior members of staff who carry the burden of the more detailed examinations.

The great volume of the year's work is all the more remarkable in view of four changes in the Laboratory Technicians, as newcomers have to be trained and a few months inevitably elapse before they can be initiated into the more general laboratory routines. In this connection Mr. Turner, the Senior Technician, has done yeoman service in initiating trainees into the routines of water analysis. The staff listed is that operative at the end of the year. Passey, Long, Davies and Whittle replace Miss Anderson, Miss Bartlett, J. F. Harris and A. V. Morgan. The girls left upon marriage, whilst J. F. Harris joined the staff at the Long Ashton Research Station and A. V. Morgan joined the Imperial Tobacco Company Laboratory Staff. Our best wishes are extended to all former members of staff for their future happiness and a welcome to all newcomers. Mrs. N. Budd

joined late in the year as a full-time cleaner, and Mrs. G. Wren, who has suffered considerable ill-health, was placed on part-time work.

The work for Gloucester County has gone well and some details of the examinations are included in this Report.

I would take this opportunity of thanking the Inspectors of both Authorities for their co-operation and great help in all matters relating to sampling.

The Report is divided into nine sections as under :—

Introduction.

Summary of Examinations.

Part I Food and Drugs Act.

Part II Fertilisers and Feeding Stuffs Act.

Part III Waters, Swimming Baths samples, Effluents and Sewage Chlorination.

Part IV Rag Flock Act.

Part V Miscellaneous Analyses.

Part VI Pharmacy and Poisons Act.

Part VII Atmospheric Pollution.

Part VIII Spectrophotometry.

Part IX Other Activities.

SUMMARY OF EXAMINATIONS

Table 1 Bristol

Milk	692
Food and Drugs	1,832
Miscellaneous	914
Rag Flock	31
Fertilisers and Feeding Stuffs	69
District Inspectors' Samples	58
Water, Swimming Baths, etc.	256
Atmospheric Pollution	
Gauges and Lead Peroxide	216
Continuous Smoke Filters	308
Phosphorus and Silica	36
Spectrophotometric Analyses	322
Chlorination visits and examinations	198
Control of water supplies to Hospitals	121
Poisons and Pharmacy Act	5
	5,058

Table 2 County of Gloucester

Milks	756
Food and Drugs	520
Water	132
Miscellaneous (included in Bristol Miscellaneous samples)	91
Fertilisers and Feeding Stuffs	72
Poisons and Pharmacy	2
Atmospheric Pollution (Lead peroxide)	6
	1,579

PART I

FOOD AND DRUGS ACT

The main function of the laboratory is, of course, the analytical work necessary to enforce the provisions of the Food and Drugs Act. Milk analysis continues to receive high priority and accounts for 692 of the 2,524 Food and Drug samples examined. This number is nearly eighty more than in 1951, whereas analyses of foods, etc., showed a very considerable rise from a little over 1,100 in 1951 to 1,832 in the year under review.

Of the eighty-one samples found to be adulterated, 56 were milks and 25 foods etc., which included sweets, vinegar, sausages, ice cream and spirit of sal volatile. This represents an adulteration rate of a little over 2 per cent for milk and one per cent for Foods etc.

New or Modified Legislation

This year saw the following new or modified legislation.

1. *Circular MF2/52 Liqueur Chocolates*

The use of the word "liqueur" should be abandoned altogether in products which contain no alcohol. Such articles in future would be described as "imitation liqueur chocolates" followed by the word "non-alcoholic".

2. *Statutory Instrument No. 507 The Meat Products Order*

From the analytical point of view this order extended minimum meat requirements to the majority of meat products and removed the restriction on the use of soya.

3. *Statutory Instrument No. 549 Labelling of Food (Amendment) Order*

This order brought Christmas puddings within the provisions of the 1950 Order which required the ingredients to be specified on the label.

4. *Press notice 6170. Revised Standards for Jam and Marmalade*

The principal changes proposed were as follows:—

(a) Increase in the minimum fruit content of blackcurrant jam from 22 per cent to 30 per cent, of loganberry jam from 25 per cent to 30 per cent and of raspberry from 25 per cent to 30 per cent.

(b) A decrease in the minimum fruit content of damson jam from 38 per cent to 35 per cent.

(c) A minimum fruit content of 30 per cent for mixtures of gooseberry/raspberry and gooseberry/strawberry.

(d) A lower minimum content of soluble solids for jam and marmalade in hermetically sealed containers.

(e) One minimum fruit content standard for all marmalade except ginger marmalade.

The foregoing are subject to representations from interested parties.

5. *Statutory Instrument No. 815 The Ice Cream (Heat Treatment, etc.) Amendment Regulations*

The Regulations 1947-1951 prescribed two alternative methods of heat treatment of ice cream. The present order adds a third method.

6. *Statutory Instrument No. 1124. The Meat Products (No. 2) Order*

Again from the analytical control point of view, this order removed the provisions permitting skim milk powder and fat of vegetable origin to count towards the meat content.

The definition of a meat product now includes soup.

7. *Statutory Instrument No. 1283. Food Standards (Ice Cream) Amendment Order*

This order reduced the standard for the fat content of ice cream to not less than 4 per cent and the milk solids other than fat to 5 per cent. The 1951 Order prescribed a minimum of 5 per cent fat and 7.5 per cent milk solids other than fat. The minimum sugar content remains at 10 per cent.

8. *Statutory Instrument No. 1697. Food Standards (Coffee Mixtures) Order*

Coffee and Chicory mixtures, including French coffee, shall be mixtures of coffee and chicory only and each such mixture shall contain not less than 51 per cent by weight of pure coffee.

Coffee with fig flavour or fig seasoning, including Viennese coffee shall be a mixture of coffee and figs only; each such mixture to contain not less than 85 per cent by weight of pure coffee.

9. *Circular MF3/52 Mineral Oil in Food (Amendment) Order*

This circular gave notice of the amendment of S.I.1950 No. 1239 by S.I.1952 No. 1822 so as to reduce the amount of mineral oil that may be present in dried fruit from not more than 1 per cent to not more than 0.5 per cent by weight of the dried fruit.

10. *Circular MF15/52 Sulphur dioxide in Imported Dehydrated Vegetables*

The Minister under Regulation 60 CAA has authorised the importation and sale in the United Kingdom of dehydrated vegetables and provides that such vegetables may contain limiting amounts of sulphur dioxide. Thus Runner beans, turnips, spinach swedes, peas, mixed vegetables, parsnips and carrots are allowed a maximum of 2,000 parts sulphur dioxide by weight per million whilst cabbage is allowed 3,000 parts per million and potatoes 550 parts per million.

11. *Circular MF16/52. Labelling of Food Order 1950*

Relaxations are made for the sale of Coronation Souvenir boxes.

12. *Statutory Instrument No. 2203 Food Standards (Suet) Order*

This order requires block suet to consist of rendered beef suet, free from fibrous tissue and containing not less than 99 per cent of beef fat, whilst shredded suet shall consist of rendered beef suet with farinaceous material, free from fibrous tissue and containing not less than 83 per cent of beef fat.

Table 3

<i>Nature of sample</i>	<i>Total examined</i>	<i>Number adulterated or otherwise irregular</i>
Milk	692	56
Almonds, Ground	5	—
Almond Paste and Marzipan	16	—
Arrowroot	7	—
Baking Powder and Golden Raising Powder	19	—
Barley, Pearl	5	—
Beer	20	—
Blancmange	2	—
Butter	18	—
Baby Food	5	—
Chocolate Sponges	3	—
Chocolate Spread	3	—
Chocolate Biscuits	2	—
Cake, Sponge and Pudding Mixture	4	—
Cakes and Pastries	31	—
Candied Peel	4	—
Canned Fish	8	—
Canned Fruit	13	—
Canned Meat and Steak	4	—
Canned Milk	13	—
Canned Vegetables	14	—
Canned Spaghetti	1	—
Cheese, Rationed and Processed	27	—
Cider	19	—
Cocoa	9	—
Coconut, Desiccated	8	—
Coffee and Chicory Essence and Coffee, Ground	31	—
Cooking Fat	22	—
Curry	3	—
Colourings and Flavourings	74	—
Chicken and Ham in Jelly	3	—
Cornflour	11	—
Custard Powder	16	—
Cornflakes	1	—
Dried Fruit	48	—
Dried Vegetables	28	—
Dried Egg and Egg Powder	5	—
Dried Herbs	28	—
Dried Milk	5	—
Dripping	6	—
Essences	4	—
Extracts	3	—
Faggots	1	—
Fish Cakes	5	—
Fish Paste	20	—
Flour, Plain, Sweetened and Self-raising	39	—
Farinoca	3	—
Glaze Fruits	1	—
Gravy Browning	16	—
Gelatine	17	—
Honey	19	—
Horseradish, Relish and Cream	5	—

TABLE 3—*continued*

<i>Nature of sample</i>	<i>Total examined</i>	<i>Number adulterated or otherwise irregular</i>
Ice Cream	282	4
Ice Lollies and Mixes	35	—
Jelly, Cubes and Crystals	34	—
Junket	1	—
Lemon Curd	7	—
Lemonade Crystals	2	—
Lime Fruit Juice	1	—
Macaroni	5	—
Margarine	20	—
Malted Milk	6	—
Meat Paste	15	—
Mincemeat	8	—
Mineral Waters and Squash	34	—
Mustard and Compound	11	—
Meat Products other than Sausages	3	—
Marmite	1	—
Meringue Powder	2	—
Mint in vinegar	1	—
Oats	5	—
Oatmeal	7	—
Potato Crisps	10	—
Pickles, Chutney and Ketchup	18	—
Pepper and Pepper Compound	17	—
Preserves, Jams and Marmalade	26	—
Pies	3	—
Rennet Essence	2	—
Rice, Ground	3	—
Rice	17	—
Ryvita	1	—
Sago	6	—
Salad Cream	15	—
Salt, Table, Iodised and Celery	15	—
Sauces	10	—
Soya Flour	2	—
Shredded Wheat	1	—
Sausages, Pork, Beef and Liver	108	3
Semolina	9	—
Soups, Canned and Soup Powder	31	—
Spices	33	—
Stuffing	5	—
Suet	6	—
Sugar	30	—
Spirits, Whiskey, Rum	17	—
Syrup and Treacle	12	—
Sweets	24	13
Tapioca	4	—
Tea	4	—
Tea Tablets	3	—
Treacle Sponge Pudding	1	—
Uncooked Pastry	2	—
Vinegar, Malt, Spirit and Non-brewed Condiment	48	2
Vegetable, Concentrate	1	—
Vermicelli	2	—
Wines, Tonic	3	—
	2,335	78

Drugs

Ascorbic Acid Tablets	2	—
Aneurine Tablets	2	—
Antipyrine	2	—

TABLE 3—*continued*

<i>Nature of sample</i>	<i>Total examined</i>	<i>Number adulterated or otherwise irregular</i>
Ammoniated Tincture of Quinine	3	1
Almond Oil	2	—
Aspirin Tablets	9	—
Basilicon Ointment	1	—
Borax	5	1
Blackcurrant Juice	1	—
Bicarbonate of Soda	7	—
Blue Ointment	1	—
Boric Ointment	4	—
Boric Acid	4	—
Butobarbitone Tablets	1	—
Camphorated Oil	6	—
Cod Liver Oil and Capsules	2	—
Codeine Tablets	2	—
Calamine Lotion	3	—
Castor Oil	3	—
Calomel Ointment	2	—
Ephedrine Tablets	2	—
Epsom Salts	2	—
Eucalyptus Oil	4	—
Extract of Malt	1	—
Friars Balsam	7	—
Glycerin	5	—
Glaubers Salts	2	—
Glucose	1	—
Gee's Linctus Pastilles	1	—
Hydrogen Peroxide	4	—
Halibut Liver Oil Capsules	2	—
Iodine Tincture	7	—
Indigestion Powder	2	—
Liquorice Powder	7	—
Liquid Paraffin	2	—
Linseed Oil	2	—
Magnesia Powder	4	—
Magnesia Carbonate	1	—
Olive Oil	3	—
Parrish's Food	2	—
Phenobarbitone	1	—
Phenacetin Cpd. Tablets	2	—
Peppermint Oil	2	—
Phenol and Carbolic Ointments	3	—
Rose Hip Syrup	1	—
Sodium Citrate Tablets	2	—
Sulphur Ointment	2	—
Sulphur Tablets and Flowers	8	—
Saccharin Tablets	7	—
Sal Volatile	5	1
Sodamint Tablets	12	—
Sulphathiazole Tablets	1	—
Seidlitz Powder	7	—
Tartaric Acid	4	—
Tonic Tablets	1	—
Tonic Food	1	—
Vitamin Food	3	—
Zinc Ointment	2	—
Zinc and Castor Oil Ointment	2	—
	189	81

Comparative figures for adulteration in Bristol for the last five years are given in Table 4.

Table 4

	1948	1949	1950	1951	1952
Total No. of Samples	2,527	2,184	2,837	1,748	2,524
Milks per cent adulterated ..	4.06	1.73	2.90	9.24	8.09
Foods (other than milk) ..	2.58	2.67	2.39	1.93	1.34
per cent adulterated ..					
Drugs per cent adulterated ..	1.31	11.11	2.17	6.2	1.60
Total per cent adulterated ..	3.56	2.15	2.57	4.86	3.21

Table 5

Average Composition of Genuine Milks for 1952.

	No.	Fat %	Non fatty solids %
January	28	3.66	8.85
February	56	3.97	8.82
March	46	3.96	8.70
April	40	3.69	8.71
May	20	3.43	8.77
June	85	3.76	8.47
July	56	3.68	8.61
August	74	3.55	8.86
September	39	3.61	9.00
October	90	3.90	8.64
November	20	4.17	8.76
December	76	3.86	8.90
	<u>630</u>	<u>3.78</u>	<u>8.71</u>

Milk

692 Milks were examined for fat, non-fatty solids and preservatives, including boric acid, formaldehyde, sodium nitrite and in certain instances, hypochlorite. In all cases where the solids-not-fat fell below 8.5 per cent, the freezing point depression was determined in the Hortvet apparatus.

All milks were free from preservative and no occasion arose to examine specifically for added colourings. Tests for hypochlorite were made from time to time, since the milk industry is permitted the use of certain hypochlorite based preparations for churn sterilisation. The presence of chlorate is used as the index of failure to remove hypochlorite completely. In no case was chlorate detected and this implies satisfactory churn rinsing.

Of the 56 milks reported as adulterated, 25 were deficient in fat, 23 contained added water, and 8 contained added water and were also deficient in fat. From this it will be noted that in all, 31 samples contained added water as indicated by deficiency in solids-not-fat and freezing point depressions less than 0.530°C. A further 30 samples were returned as abnormal in respect of non-fatty-solids, since this figure was below the presumptive 8.5 per cent standard but the freezing point determination indicated genuine milks. Four samples were returned as suspicious since the freezing point depression figures were slightly below 0.530°C. It is apparent therefore, that the Hortvet technique continues to be of great value in milk analysis.

Foods other than Milk

It is obviously impossible to deal with all of the 1,832 samples of Foods etc. other than milk and a selection will be made for general comment only.

Fatty Substances

Butter	..	..	..	..	..	18
Margarine	..	..	..	..	..	20
Cheese	..	..	..	..	..	27
Dripping	..	..	..	..	..	6
Cooking Fat	..	..	..	..	..	22
Suet	..	..	..	..	..	6

All these samples proved satisfactory and in particular free from rancidity. Cooking fats were free from undue moisture whilst the butters and margarines had water contents within the permitted 16 per cent, although for economic reasons, the water figures were found to be generally very close to the maximum. Similarly boric acid up to 0.25 per cent is permitted in margarine and in the twenty samples examined, the amount found was in all cases very near the limiting amount.

Canned Goods

These included fish, fruit, meat, milk, vegetables and spaghetti. A plea is made for these commodities to bear some indication of their age. I consider that the procedure adopted and indeed insisted upon, by the Services during the war years could be usefully followed for civilian issue. Broadly speaking all commodities were required to carry the date of manufacture and a warranty expiry date, dependant on the type of food, and, subject to inspection by a War Department Analyst, the warranty date could be extended. Some such scheme appears highly desirable and would go far to ensure speedy turnover of goods.

Whilst no great difficulty occurred in respect of canned tomatoes, as submitted by the food inspectors, trouble has been experienced with Italian products arriving at the port. A considerable number of blown cans have been found, and the tin and copper contents have frequently been excessive. The tomatoes have in consequence developed an astringent taste and despite the comment of a Ministry official that the public like this astringent quality, I am convinced that the majority of people would prefer tomatoes without this undesirable metallic contamination. It probably remains government policy on reciprocal trade agreements that such commodities should be imported. It would, however, seem desirable to utilise the heavy Channel Island tomato crop and can the tomatoes in this country, where I am sure the canning industry is in much better shape at the present time than it is in Italy.

Ice Cream and Ice Lollies

The satisfactory position reported in 1951 was fully maintained in 1952. Only 4 samples of the 282 ice creams examined required adverse comment and that for fat contents less than the prescribed minimum of 4 per cent. It should be noted that the Ice Cream (Amendment) Order became operative in early July and this reduced the fat content of ice cream to not less than 4 per cent and the milk solids other than fat to 5 per cent. The bulk of the ice cream is prepared by the big manufacturers and the fat, milk solids and sugar standards have been fully maintained.

With respect to the 35 samples of ice lollies and lolly mixes, the

position is satisfactory. A prosecution taken at Dursley, Gloucestershire, brought out the point that lollies could be regarded as foods. Further the Health Committee of the Lancashire County Council has asked the County Council Association to make representations to the Ministry of Food on the standards of composition of ice lollies and the committee also deems it desirable that premises used for manufacture, storage and sale of lollies should be registered in the same way as premises for ice cream.

At the same time consideration might well be given to metallic contamination of lollies. The organic acids, tartaric and citric acid likely to be used are very prone to attack metal moulds and significant amounts of lead, zinc and copper may be taken up. The trouble may, of course, be avoided by employing plastic moulds and these are being used increasingly.

Sausages

Of the 108 samples three only were returned as deficient in meat and all complied with the Preservative regulations. A repeat formal sample of one deficient informal sample was found to be genuine. Two formal samples were referred to the Ministry of Food. The necessity to refer such cases remains a matter for urgent reconsideration and it would be desirable for local authorities to take proceedings in such cases without the consent of the Ministry. A number of the samples returned as genuine were certainly given the benefit of the doubt for the meat content of some beef sausages was in the 45-50 per cent range whilst some pork samples ranged from 60 to 65 per cent. Incidentally whilst skim milk powder and soya may still be used, such additions shall not count towards the meat content.

Starch Foods

In all appropriate samples examination was made for possible infestation, but in no case was any encountered.

Thirty-one samples of flour, plain and self-raising were examined. The self-raising flours complied with requirements in respect of available carbon dioxide and the Fluorine in Food Order.

Sweets

Twenty-four samples of sweets, purchased as butter products, were examined for their butter content as suggested in the Code of Practice agreed between the Ministry and the Chocolate, Sugar and Confectionery Trade. Broadly speaking, usage of the word "butter" should be confined to products with at least 4 per cent of butter fat. Thirteen samples failed to comply and letters were sent to the manufacturers. In some cases the sweets should have been sold as "butter flavoured" and in others the makers agreed to this modification of description. It must be remembered that there is no order controlling the use of the word, but simply a code of practice. In one or two instances presumably the makers were not parties to the code.

Vinegar and Non-Brewed Condiment

The forty-eight samples examined included malt and spirit vinegars and artificial vinegars, now described as non-brewed condiment. All samples were correctly designated and adverse comment was made upon two samples—for deficiencies in acetic acid. Attempts to follow up these samples were not successful as the stock of vinegar was exhausted.

None of the samples examined contained vinegar eels.

Preservatives and Colouring Matters

All staple foods with the exception of margarines were free from preservative and prohibited colourings. Margarine is of course, allowed a limiting amount of boric acid. Certain specified foods are permitted limiting amounts of benzoic acid or sulphur dioxide.

Benzoic acid was sought in 18 Coffee and Chicory Essences, 30 mineral water and 10 tomato ketchups, 6 sauces and 12 pickles. In all cases the preservative was either absent or within the permitted amount.

Sulphur dioxide was sought in the following articles and again was either absent or within the permitted limits.

Beer	..	..	..	..	..	20
Cider	..	..	..	..	..	19
Pork Sausages	..	..	..	..	..	26
Beef Sausages	..	..	..	..	..	82
Jams, Syrup and Mincemeat	..	..	..	..	..	72
Mineral Waters	..	..	..	..	..	34
Candied Peel	..	..	..	..	..	4
Gelatine	..	..	..	..	..	17
Dried Fruit	..	..	..	..	..	48
Jelly Cubes and Crystals	..	..	..	..	..	34
Potato Crisps	..	..	..	..	..	10
Fish and Meat Paste	..	..	..	..	..	35
Starches	..	..	..	..	..	65
Sauces, Ketchups, etc.	..	..	..	..	..	28

Seventy-four colourings and flavourings were also examined. The colourings were all of the non-prohibited type and the flavourings with two exceptions were satisfactory, and free from undue acidity caused by the breakdown of the esters. The question of Preservatives and Colourings in Foods is under active consideration and the Committee will have regard to anti-oxidants and the like. It is also probable that a list of permitted colourings will be prescribed as distinct from the present regulations which relate only to prohibited colours.

Drugs

One hundred and eighty-nine samples were submitted and are included in detail in Table 3. An attempt was made to include some of the less common drugs and a few of the barbiturates were included with such items as vitamin tablets and ephedrine tablets.

Three samples were reported as unsatisfactory and included one ammoniated tincture of quinine with a 30 per cent deficiency in ammonia : borax which proved to be 100 per cent boric acid and a spirit of sal volatile 66 per cent deficient in ammonia and 43 per cent deficient in ammonium carbonate.

ACTION IN RESPECT OF SAMPLES REPORTED BY THE PUBLIC ANALYST AS "NOT GENUINE DURING 1952

C
60

<i>Description</i>	<i>No. of Samples</i>	<i>Reason not Genuine</i>	<i>Action Taken</i>
Milk	18	Added Water	Legal proceedings. Penalties imposed in respect of 2 churns. Ownership of 16 churns not proved
Milk	19	Deficient in Fat	Genuine when bulked
Milk	2	Added Water	Verbal warning
Milk	2	Added Water	Repeat samples genuine
Milk	8	Added Water and Deficient in Fat	Insufficient evidence for proceedings
Milk	1	Deficient in Fat	Repeat sample unobtainable
Milk	5	Deficient in Fat	Appeal to cow genuine. Warning issued
Milk	1	Added Water	Awaiting legal proceedings
Sausages	1	Deficient in Meat	Repeat samples genuine
Sausages	2	Deficient in Meat	Referred to Ministry of Food
Sweets	13	Deficient in Butter Fat	Letters sent to manufacturers
Spirit Sal Volatile	1	Deficient in Ammonia and Ammonium Carbonate	Verbal warning
Ice Cream	4	Deficient in Fat	Repeat samples genuine
Borax	1	Contained Boric Acid	Incorrect labelling. Vendor cautioned
Tincture of Quinine	1	Deficient in Ammonia	Stock disposed of. Warning issued
Vinegar	2	Deficient in Acetic Acid	Stock exhausted
Total	81		

PART II. FERTILISERS AND FEEDING STUFFS ACT

Sixty-nine samples were examined under this Act and included 21 Formal and 30 Informal Fertilisers with 13 Formal and 5 Informal Feeding Stuffs. A significant number of samples failed to carry statutory statements and several letters of warning were issued. The position with respect of unrationed poultry meal is unsatisfactory and there is a very definite tendency for such samples to contain excessive amounts of fibre whilst protein and oil contents are low.

Table 6

Fertilisers

No.	Nature	Formal or Informal	Comment	Action
2	Sulphate of Potash	F	Potash K_2O 52.2 per cent against a declared 48.0 per cent.	Warning letter sent.
3	Basic Slag	F	Satisfactory.	
5	Nitrate of Soda	F	Satisfactory.	
6	Sulphate of Potash	I	Satisfactory.	
7	Sulphate of Potash	I	Satisfactory.	
8	National Growmore	I	Satisfactory.	
9	Sulphate of Ammonia	I	Free acidity Nil but statement should declare the acidity.	Warning issued.
10	Sulphate of Ammonia	I	Satisfactory.	
11	Sulphate of Ammonia	I	Free acidity Nil but statement should declare the acidity.	Warning issued.
12	Sulphate of Ammonia	I	Free acidity Nil but statement should declare the acidity. The ammonia equivalent of the nitrogen was wrongly calculated.	Warning issued.
13	Seaweed Fertiliser	I	Satisfactory.	
14	Sulphate of Ammonia	I	Free acidity Nil but statement should declare the acidity.	Warning issued.
15	Superphosphate	I	Satisfactory.	
16	Bone meal	I	Nitrogen 4.7 per cent against a declared 3.75 per cent.	Formal sample requested.
17	General Fertiliser	I	In the absence of a statutory statement the sample is regarded as of poor quality.	Warning issued.
19	XPK Granular Fertiliser	F	Soluble P_2O_5 excessive whilst insoluble P_2O_5 is deficient	Warning letter sent.

Table 6—continued

No.	Nature	Formal or Informal	Comment	Action
20	XPK Granular Fertiliser	F	Soluble P_2O_5 excessive insol. P_2O_5 is deficient.	Warning letter sent.
21	Bone Meal	F	Satisfactory.	
22	Superphosphate	F	Satisfactory.	
23	Superphosphate	I	Requires a statutory statement.	
24	Nitrate of Soda	I	Satisfactory.	
25	Hydrated Lime	F	Satisfactory.	
26	Superphosphate	F	Slight excess of soluble P_2O_5 .	Not regarded as to the prejudice of the purchaser. Letter sent requesting observations.
27	National Growmore	F	Satisfactory.	
28	Bone Meal	F	Satisfactory.	
29	Sulphate of Ammonia	I	Satisfactory.	
30	Sulphate of Ammonia	I	Satisfactory.	
31	Seaweed Fertiliser	F	Nitrogen, Insol. P_2O_5 and K_2O all in excess.	Letter sent requesting observations of manufacturer.
32	Garden Fertiliser	F	Satisfactory.	
33	No. 7 Granular Fertiliser	F	Satisfactory.	
34	No. 12 Granular Fertiliser	F	Satisfactory.	
36	Sulphate of Ammonia	F	Satisfactory.	
37	Sulphate of Potash	F	Satisfactory.	
39	Nitrate of Soda	I	Satisfactory.	Letter to vendor.
40	Hydrated Lime	I	Satisfactory.	
41	Bone Meal	I	Requires statutory statement.	
42	Bone Meal	I	Satisfactory.	
44	Basic Slag	I	No statement given. P_2O_5 figure and fineness required.	Warning letter to vendor.
45	Bone Meal	I	Satisfactory.	

Table 6—continued

<i>No.</i>	<i>Nature</i>	<i>Formal or Informal</i>	<i>Comment</i>	<i>Action</i>
46	Superphosphate	I	Satisfactory.	
48	Nitrate of Soda	I	Requires statement. Nitrogen content satisfactory.	Warning letter to vendor.
49	Bone Meal	I	Requires statement. Nitrogen and P_2O_5 figures of the correct order.	Warning letter to vendor.
50	National Growmore	I	Soluble P_2O_5 low, offset by slight excess of insoluble P_2O_5 . Potash at 4.4 per cent is decidedly less than the declared 7.0 per cent.	Letter to manufacturers.
52	Sulphate of Ammonia	F	Statement should include information as to acidity.	Letter to vendor.
53	Fish Meal	I	Satisfactory. There is no necessity to provide information on the potash content of fish meal.	
54	Basic Slag	I	Satisfactory.	
55	Basic Slag	I	Statement should include information as to fineness.	Letter to Vendor.
56	Basic Slag	I	Statement should include information as to fineness.	Letter to Vendor.
58	Potato Fertiliser	F	Satisfactory apart from slight excesses of soluble and insoluble P_2O_5 .	
62	Basic Slag	F	Satisfactory.	
63	Sulphate of Potash	F	Satisfactory.	

Table 7
Feeding Stuffs

<i>No.</i>	<i>Nature</i>	<i>Formal or Informal</i>	<i>Comment</i>	<i>Action</i>
1	Poultry Balancer Meal	F	Albuminoids 13.1 per cent against a declared 18 per cent.	Warning letter sent.
4	Poultry Balancer Meal	F	No statutory statement given.	Referred to Town Clerk for consideration of proceedings.
18	Poultry Balancer Meal	I	No statement given. Fibre appears to be excessive.	Warning issued.

Table 7—continued

No.	Nature	Formal or Informal	Comment	Action
35	Poultry Meal	F	No statement. Considered to be low in protein and high in fibre.	Referred for opinion of Ministry of Agriculture.
38	Pig Fattening Meal	F	Satisfactory.	
43	Unrationed Poultry Meal	I	No statement given. As a meal sample is low in oil and protein with excessive fibre.	Referred for opinion of Ministry of Agriculture.
47	Unrationed Balancer Meal	I	Requires statement. Oil protein and fibre of correct order. Ground oats pea and bean starch present.	Warning letter to vendor.
57	Linseed Cake	F	Satisfactory.	
59	Clover Meal	F	Statement required for fibre content.	Reported to Town Clerk for consideration of proceedings.
60	Meat Meal	F	Statement required in respect of oil, protein and phosphoric acid.	
61	Pig Starter Meal	F	Satisfactory.	
64	Meat Meal	I	Statement on oil and albuminoids required.	Letter to vendor.
1A	Poultry Balancer Meal	F	Oil at 3.3 per cent is in excess of declared 2.5 per cent. Slight deficiency of fibre.	
2A	Poultry Food 1A	F	Fibre at 6.1 per cent is slightly outside lower limit of variation.	
3A	Poultry Food 1A	F	Satisfactory.	
4A	Pig Fattening Meal	F	Fibre at 4.6 per cent is well below the declared 6.5 per cent.	
5A	Poultry Food 1A	F	Satisfactory except for slight excess of fibre.	

PART III. WATER ANALYSIS & SEWAGE CHLORINATION**Bristol**

City water from tap at Canynge Hall	..	..	..	..	53
City water from pumping station, Knowle	..	..	..	..	12
Downend and Frenchay Hospitals (West Gloucester supply)	..	..	..	..	18
Charterhouse Hospital (Axbridge supply)	..	..	..	..	5
Wells, streams, lake, etc.	..	..	..	..	14
Pond and Rain water	..	..	..	..	7
Seepage, Sewage and Trade Effluents	..	..	..	..	16
Docks and ships in Port	..	..	..	..	7
Private Houses	..	..	..	..	6
Swimming Bath Waters	..	..	..	..	114
Miscellaneous	..	..	..	..	8
					<u>260</u>

Table 8

Source	Bristol Supply		West Gloucester Supply
	Tap at Canynge Hall	Tap at Jubilee Road, Knowle	Taps at Downend and Frenchay
No. of Samples	53	12	18
	<i>Parts per million</i>		
Total Solids	278	342	322
Mineral Matter	226	295	264
Loss on Ignition	52	47	58
Chlorine as Chlorides	12	12	27
Nitrate Nitrogen	1.27	1.89	0.98
Free Ammonia	0.03	0.07	0.01
Albuminoid Ammonia	0.02	0.01	0.01
Total Hardness	232	292	230
Permanent Hardness	59	64	50
pH	7.7	7.4	7.6

The City and hospital supplies were satisfactory apart from six samples which gave some degree of bacteriological contamination. Samples from five wells in the Bishopsworth area, yielded only one which was satisfactory. Four of the seven samples from the City and Avonmouth Docks and ships in port were unsatisfactory bacteriologically.

Of the 114 Swimming Baths samples, 24 contained less than 0.2 parts per million of free chlorine and the Bath Superintendent was advised to step up the dosage at the baths concerned.

The use of break point chlorination of swimming bath water is being extended rather rapidly. As a result the Ministry of Health publication of 1939 has been rendered out of date, at least in part, and it is in fact in course of active revision. Pending the publication of the revised edition, it is suggested that, where break-point chlorination has been used, it would be advisable to pass residuals of the order of 1.0 to 1.5 parts per million, which in fact may be necessary to ensure that the ammonia is continuously broken down. It is desirable that 70 per cent. or more of the residual should be "free chlorine", not chloramine (for estimation see e.g. Analyst 1945 70,203) and that the sample should not have a pronounced chlorine odour. The control of pH is especially important and should be in the range of 7.4 and 8.0 and reports should criticise samples where it is less than 7.0.

Gloucester

Thirty-five of the ninety-seven potable waters submitted, were satisfactory both chemically and bacteriologically—these were principally mains supply. The remainder showed evidence of pollution or contamination.

Wells, Springs and Boreholes	72
Mains supply	25
Miscellaneous	5
Sewage, Sewage Effluent and Trade Waste	31

Report of the Chlorination Officer

Chlorination plant was in operation from the end of May until the end of September. River treatment was held up during the early part of the season, but was helpful when in use. The new station at Prince Street is giving satisfactory service.

General Operation

All established chlorination plant was connected up and tested during May. The need for treatment was first apparent on the last two or three days of May and regular treatment was started forthwith.

In mid-July the maximum rate of treatment became necessary in order to keep down odour nuisance. Cooler conditions prevailed during August and with the river treatment plant running, no further odour nuisance was observed.

From mid-August until the end of September, the chlorinators were run at a low rate of dose, but a reasonable stock of chlorine had to be held in case of warm weather.

The surplus chlorine was returned to the manufacturers at the end of the season, full credit being allowed. A total of 120 drums (17 cwt. net) was purchased of which 104 were used and 16 drums returned, making an actual consumption of 87.5 tons of chlorine.

River Treatment

The river treatment plant at Ashton Swing Bridge made a late start as the Railway Executive did not extend last year's permission until mid-July. Considerable difficulty was experienced in getting a satisfactory high pressure water supply. It is recommended that the installation of an electric driven pump be started as soon as possible. This would involve the construction of a small semi-permanent hut and the laying of about 150 yards of water main. The most valuable feature of river treatment is that a short burst at a heavy rate of dose may produce an effect which is discernible almost at once.

Chlorination Equipment

There are now fourteen new type chlorinators in service. Six old type machines are still in use in established stations, but three of these are now of doubtful reliability. It is recommended that three replacements be purchased, the old chlorinators can then be broken down to enable the last three to be maintained in their original form for another season.

Bleach Treatment

Bleach has been put to very little use, as general conditions have not required this type of treatment. However, on the two occasions when bleach was used on a small scale, for degassing a sewer, results were completely satisfactory enabling the sewer men to work without interruption.

Additional Duties

Chlorination staff are responsible for the maintenance of the sewage ejector at Lawrence Weston and also control the discharge of waste detergent from tankers which is collected by contractors from an engineering works.

From time to time, as conditions allow, help is given with the main

drainage research models, trial boring operations and in any other sphere where assistance may be urgently required : such assistance being charged to the appropriate account.

Paddling Pools

The Chlorination officer and the Additional Public Analyst acting as his assistant, supervise the Blaise Castle and St. Andrew's Park paddling pools from the public health standpoint.

Subsidiary Work

A variety of additional duties has been undertaken, some for outside authorities by arrangement, the most important of which are as follows:—

The chlorinator at Periton Mead School, Minehead, is now maintained by annual contract with the City Valuer's Department. Ham Green and Charterhouse Sanatorium water supplies are checked and the treatment supervised. Technical assistance and advice have been given to Standish House Sanatorium.

The officer, assisting the Public Analyst, is concerned in any problem connected with water, trade effluent or drainage on which help is sought.

PART IV. RAG FLOCK ACT

Thirty-one samples were examined as prescribed by the 1913 Regulation and as a measure of token sampling until the interested parties have further discussed the Rag Flock and other filling Materials Act 1951. The main difficulties in and arising from the Act were mentioned in my Report for 1951 and the latest information was given in the December 1952 issue of the Journal of the Royal Institute of Chemistry and is quoted here :—

“ Observations on certain provisions of the Act were submitted by the Institute to the Minister of Local Government and Planning in August, 1951, and representations on matters arising from the Regulations made under the Act were forwarded to the Ministry of Housing and Local Government on behalf of the Joint Committee of the Institute and the Society of Public Analysts and Other Analytical Chemists on 10th January, 1952. It had then been stated that the Minister proposed to review the whole question of the analytical work required by the Act and the Regulations when the Act had been in operation for about six months. In accordance with this proposal, representatives of the Joint Committee were invited to discuss relevant matters with officials of the Ministry on 28th October.

“ At this meeting questions were raised about the entrustment of certain chemical tests, designed for the protection of the public, to prescribed analysts who did not necessarily hold the qualifications required of a public analyst and who appeared in some instances to be connected with the trade. It was recognised, however, that at least one of the tests was of a mechanical nature and involved the use of specialised equipment that was not normally available to public analysts. Questions about scales of fees were also raised. Various suggestions for modification of the Regulations were put forward by representatives of the Joint Committee and these are being considered by the Ministry.”

The Sanitary Sub-Committee of the City were advised of the position and the matter will be reviewed in six months time.

Of the thirty-one samples examined, twenty proved satisfactory and comment was necessary on the following:—

R.F.	5	Rag Flock	7 parts per 100,000 chlorine in excess.
	10	Feathers	Contained 79 parts chlorine per 100,000.
			Not a flock within the meaning of the Act.
	11	Felt	Contained 61 parts chlorine per 100,000.
			Not a flock within the meaning of the Act.
	17	Coir Hair	Contained 77 parts chlorine per 100,000.
			Not a flock within the meaning of the Act.
	19	Coco fibre	Contained 152 parts chlorine per 100,000.
	22	Hair	Contained 438 parts chlorine per 100,000.
	23	Felt	" 144 " " "
	25	Wool Felt	" 133 " " "
	27	Felt	" 106 " " "
	28	Felt	" 13 " " "
	30	Felt	" 194 " " "

In most instances where the routine chlorine method was used and the chlorine figure was apparently excessive, the article involved was not subject to a limiting chloride test in the 1951 Regulations.

PART V. MISCELLANEOUS ANALYSIS

Table 9

1	Infestation	..	..	..	..	..	30
2.	General	..	..	..	..	..	210
3.	Biochemical	..	..	..	..	..	23
4.	Toxicological	..	..	..	..	..	45
5.	District Inspectors' Samples	..	..	..	..	..	58
6.	Ministry of Food and Ministry of Agriculture and Fisheries	..	..	..	..	..	3
7.	Atmospheric Pollution	..	..	..	..	..	23
8.	University Departments	..	..	..	..	..	7
9.	Other Authorities	..	..	..	..	..	18
10.	Spectrophotometry	..	..	..	..	..	118
11.	Civil Defence	..	..	..	..	..	1

Corporation Departments

12.	Central Purchasing	..	..	..	..	..	17
13.	Port Health	..	..	..	..	..	185
14.	City Engineer	..	..	..	..	..	202
15.	City Architect	..	..	..	..	..	6
16.	Port of Bristol	..	..	..	..	..	6
17.	Police	..	..	..	..	..	4
18.	Housing	..	..	..	..	..	2
19.	Transport and Cleansing	..	..	..	..	..	7
20.	Rat Repression	..	..	..	..	..	3
21.	Gloucester County	..	..	..	..	..	95

I. Infestation

Thirty samples were examined for infestation, identity of insects possible rodent excreta and vinegar eels.

Brief comment upon the more interesting samples is appended.

Biscuits	..	..	Heavy infestation with stegobium
Piece of bread	..	..	Infested with triboleum castaneum
Pudding mixture	..	..	Infested with niptus hololeucus
Chocolate	..	..	Infested with triboleum castaneum

Several portions of brown and white bread were examined for rodent excreta and in all cases the alleged excreta proved to be portions of dirty and sometimes oily dough.

An orange drink, stated normally to have a life of not more than five days, was found to contain mycelia of ascomycetes. It was suggested that controlled and limited treatment with sulphur dioxide may prevent growths.

A bottle of milk was submitted with a request for identification of a foreign body. This proved to be a black slug about one inch long. In subsequent court proceedings, a fine of £10 was imposed upon the vendor of the milk.

A sample of vinegar was found to contain between 400 and 500 vinegar eels per millilitre and was in consequence reported as unfit for consumption.

2. General

Samples examined under this heading grow in number, variety and complexity each year and of 210 specimens submitted, the following are of general interest.

A marmalade contained foreign matter which consisted of red and white cotton threads in the form of a chain.

A golden syrup alleged to contain rust spots was eventually the subject of communication with the manufacturers. The spots may sometimes develop into streaks reminiscent of comets and apparently such troubles can arise after prolonged storage and result from slight imperfections in the plate of the can body when some of the steel surface is exposed to the action of the syrup. A little iron dissolves locally with the production of the offending dark complex of iron. The manufacturers are prepared at all times to replace such syrups which can be re-processed. The matter is fully considered in a note to the Analyst 1944 p.p. 242-243.

Repeat examinations for fluorine of the four main water supplies to the City gave the following results :—

Mains water. Tap in Laboratory.	Fluorine	0.02	parts per	million
West Gloucester supply	0.04	..	..	..
Portishead supply	0.005	..	..	..
Sherborne supply	0.01	..	..	..

A sample of coca-cola was examined for general composition. The drink which appears to be increasing in popularity in this country is a carbonated preparation containing approximately 10 per cent of sugar. The only physiologically active principle appears to be caffeine which is present to the extent of 30 mgms. per bottle of about 7 fluid ounces.

Certain portions of badly stained Pork Luncheon Meat in cans were found to contain as much as 14 grains of tin per lb. The meat was considered unfit in consequence.

Several rabbits, part of an importation from Eire were found to be of unpleasant tallowy odour and flavour due mainly to advanced rancidity of the fat.

Butcher's brine pickle containing some 16 per cent of salt was examined and found to have a faint rubber-like odour due to preparation in special tanks coated with a chlorinated rubber paint. Successive treatments of the tanks with brine eventually brought about a practically complete disappearance of the offending odours.

Some bread rolls were found to be coated with a sprinkling of seeds from the poppy plant. Such seeds are apparently used in bakery practice and incidentally form one constituent of bird seed.

Some difficulty was occasioned by the unusual flavour given by Jamaican oranges expressed for canning as the juice. A complaint was received that the juice was not derived from the orange but from grapefruit. Canned grapefruit juice however, from the same packing house as the orange juice indicated that the Jamaican orange juice was genuine.

Another grapefruit juice which had suffered long storage contained tin equivalent to 5.6 grains per lb. and the astringency was not improved by iron equivalent to 108 parts per million.

Tinned grapes alleged to contain foreign glass-like crystals did in fact show the presence of cream of tartar derived from the grapes as a natural constituent.

A marmalade contained specks of foreign matter which were shown to be particles of iron oxide. As the oxide was distributed fairly evenly through the jam, the inference was that the fault must have occurred during manufacture.

A pastry was submitted containing embedded foreign matter, which proved to be a half inch stub of cigarette charred at one end. The microscopic characteristics of the tobacco leaf were well demonstrated.

A number of wooden boxes were examined and found to be contaminated with a non-active mould growth. A washing with dilute copper sulphate was suggested as a remedial action.

Some packets of block salt were found to contain vegetable fibres and gum derived from the wrapping paper. The manufacturers were advised and hope to avoid the trouble in future.

An empty milk bottle was examined for an alleged line of dirt within the bottle. The offending line was in fact outside the bottle at the point of taper and was due to wear on the glass by the star-wheel of the bottling machine.

A number of samples of bottled peaches and apricots imported from Eire were examined. Several were found badly fermented and all contained traces of tin. It appears that the peaches and apricots were originally in cans and the Irish authorities, in order to re-export such products to this country, are forced to bottle the fruit which is then very liable to undergo fermentation and decomposition.

A bottle of milk containing fragments of glass is shortly to be the subject of a prosecution, whilst another empty milk bottle contained a piece of thin cardboard which proved to be a portion of a Player's cigarette packet carrying written instructions to the milkman concerning the day's milk requirements.

Complaints were received concerning sickness and a vague sense of ill-health as a result of eating fried fish and chips. The particular shop was visited and samples taken from the two frying pans and both were shown to be decidedly rancid. As controls palm kernel oil and dripping from the same source, were satisfactory. It would appear that the pan fats are likely to become rancid in a comparatively short time and the trouble is certainly made of long duration by successive topping up of these fats. As a result of this problem, it was decided to make a more comprehensive survey of happenings in the city's fish and chip saloons.

A sample of cockroach powder was found to have the following approximate composition, 75 per cent boric acid, 22 per cent sucrose and 3 per cent starch.

Finally under this classification, canned grapefruit was submitted for identity of yellowish white specks. These proved to be clusters of needle shaped crystals of very bitter taste. The general characteristics indicated the presence of the glucoside, naringin, which is commonly present in the pith of citrus fruits.

3. Biochemical

This section and that following must inevitably overlap. The twenty-three specimens classified under this heading come mainly from the regional hospitals including Southmead, Cossham and Frenchay, the Children's Hospital, Ham Green and the Bristol Royal Infirmary.

Two breast milks were submitted, one found of normal composition and the other for examination for the presence of phenobarbitone which was not detected. The latter specimen was of interest because in the last few years a number of such milks have been examined for barbiturates where such have been administered, and to date a positive has never been obtained. It would appear therefore, that these drugs do not reach the milk.

Of five bloods examined for lead, three had a normal blood lead whilst one was regarded as slightly abnormal at 0.086 mgrs. per 100 ml. and another abnormal at 0.17 mgrms per 100 ml.

A portion of bone associated with the slightly abnormal blood lead contained a normal amount of lead at 64 parts per million.

In an attempt to find how one child might have conceivably been poisoned by lead, two specimens of children's paints and a penholder were examined without detecting significant amounts of lead.

Two specimens of teeth gave lead contents of 55 and 100 parts per million respectively. The latter figure might have been regarded as diagnostic of disseminated sclerosis but for some doubt as to possible filling of the tooth.

Three specimens of urine were examined for lead and all were within the normally accepted range. A further five urines were examined for copper level and again all were normal. A final urine was examined for atropine and a very faint positive was obtained after the usual Stas-Otto treatment.

4. Toxicological

Forty-five specimens were grouped under this section and the more interesting cases were as follows:—

Two post mortem specimens of lung tissue, one from a child of four and a half years, the other from a normal adult, both showed traces of silver of the order of 0.04 parts per million. A fat estimation indicated 5.1 per cent in the child and 3.7 per cent in the normal. These specimens were examined in connection with the use of nasal sprays containing silver compounds.

Four urines from one patient gave mercury contents varying as follows: 0.16, 0.21, 0.83, 1.12 parts per million. The patient had been treated with mercurial preparations.

Specimens of hair and fingernails from one patient gave no evidence of arsenic.

Urine from a child recently returned from Egypt where she had suffered prolonged exposure to D.D.T., gave no evidence of this compound. The limit of detection of the method was 0.2 parts per million.

Seven urines from one patient were examined for atropine after alleged overdosage with homatropine hydrobromide in eye drops. No evidence of atropine was obtained. Two eye drop preparations associated with the case were found to be correctly dispensed.

Specimens of urine from twelve different patients with varying symptoms of selenium poisoning, were examined for the metal. The lowest amount found was 0.02 parts per million and the highest 1.40 parts per million. The selenium content of normal urines may rise to 0.04 parts per million.

An alleged liquid extract of malt was found to consist entirely of a disinfectant containing at least 46 per cent of cresols. This was a case of serious dispensing error in a hospital which very fortunately was detected before any accident occurred.

Barbiturates were found in three different urines although stomach washings from two patients gave negative results for these drugs.

5. District Sanitary Inspectors' Samples

Fifty-eight samples were submitted and the following were satisfactory :—Coffee Essences, Canned Salmon, Pork Luncheon Meats, Rice, Self-raising flour, Danish Luncheon Meats.

Of the unsatisfactory samples the following require comment.

Fruit Salad in syrup	Complaint sample found to be badly fermented. Control sample on delivery showed slight fermentation in 72 hours. Faults in bottling, rendering the fruit unfit.
Norwegian Canned Peeled Shrimps	Offensive odour due probably to shrimps being in a state of incipient decomposition prior to canning.
Cheese	Dark patches near the surface of the cheese were due to dirt and not mould growth.
Sugar	This sample was free from urine contamination.
Dried Fruit (Raisins)	The yellow dust-like growth proved on culture to be of the species "Fungi Imperfecti". The product would be unsaleable.
Processed Cheese (Dutch) ..	The buff coloured mould growth was confined to the grease-proof wrapper. The cheese was little affected and could be trimmed.
Canned Prunes (S. Africa) ..	Can blown and tin content 1.4 grains per pound. Unfit.
Canned Carrots (Dutch) ..	Can blown and tin content 1.4 grains per pound. Unfit.
Cake	The fat from this sample gave signs of incipient rancidity and the fruit was mouldy.

Certain specimens from the District Inspectors were required for information and guidance. In some instances these specimens were not foodstuffs and the more interesting are commented upon.

Fuel oil	Alleged to cause a nuisance. This specimen gave an intense blue fluorescence whereas control specimens gave a yellow fluorescence.
Insects	Identified as <i>Attagenus Pellio</i> , members of the <i>Dermestidae</i> family. The adult insect causes little damage and most trouble is due to the larval forms.

Toy celluloid doll	This article in the shape of a rattle smelled strongly of urine. Seeds present in the rattle were a normal filling. It is suggested that the toy had probably been dropped in a lavatory.
Beetles	Insects identified as <i>Rhagonycha Fulva</i> .
Deposit and a portion of wall	The swelling and lifting of plaster probably due to a change in the state of hydration of magnesium salts.
Beetles	Identified as common ground beetles probably <i>carabus violaceus</i> .
Dust, hairs and Rubber Latex	The dust was apparently not associated in any way with the hairs and latex.

6. Ministry of Food and Ministry of Agriculture and Fisheries

Only three samples were submitted. One related to a sample of cream which was found to contain 62 per cent of butter fat. The fat was most probably derived from the cow in which case, the sale of such cream was a contravention of the Cream Order. Nevertheless a successful defence had been made elsewhere in similar circumstances that the cream had been prepared from goat's milk—a somewhat difficult matter to rebut convincingly upon chemical evidence.

Both samples received from the Ministry of Agriculture and Fisheries were cheese. The Ministry had stated that the quality of the cheese was very poor and contended that the farmer concerned was using very unsatisfactory methods of manufacturing the cheese. The farmer alleged that his cows were drinking water from a source known to have a high lead content and he was trying to use this fact to account for the poor quality of the cheese. No undue amount of lead was found in the samples received.

7. Atmospheric Pollution

Twenty-three deposit gauge samples taken in the Avonmouth area were examined primarily for zinc and fluorine. Comment upon the results will be found under the main section Atmospheric Pollution.

8. University Departments

A considerable number of samples considered under the section on Spectrophotometry were examined for University Departments and only seven samples can be classified here for direct chemical tests. Of these only one required comment. A sample of the effluent from Langford House was found to satisfy the requirements of the Royal Commission in respect of suspended solids and B.O.D.

9. Other Authorities

Eighteen samples were received from various authorities including the Long Ashton Research Station, Long Ashton Rural District Council, the National Blood Transfusion service, the Petroleum Officer, Weights & Measures Department.

Of the more interesting specimens, the following are worthy of mention. The estimation of iron in tomato ashes caused some concern at Long Ashton and a method found useful in this laboratory was found to give satisfactory and concordant results in both laboratories.

The Transfusion service was much interested in the viscosities of graticule glues. Two were examined and found of satisfactory properties and it was intended that future batches of glue should be similarly considered.

Canned blackcurrants submitted by the Weights & Measures Department were found to be seriously deficient in currants, but random sampling of the same brand indicated that the complaint sample probably resulted from some plant breakdown at the time of canning.

As a result of the Chief Inspector's report upon the explosion in Ashley Road, the Fire Service established a Petroleum officer and staff to supervise all matters relating to Petroleum storage in the City. Several examinations were made for the Petroleum Officer and one visit paid to a garage where petrol was found to be entering the drains. Through the good offices and active co-operation of Mr. H. S. Howes, I secured the use of certain testing equipment not in the possession of the laboratory and I acknowledge with thanks, his great help in preventing what might have been a repetition of the Ashley Road disaster.

In the absence of certain railway chemists owing to illness, I consented to assist the Railway Executive in the matter of some very expensive cloth which had been damaged in transit from Edinburgh. The cloth, hessian, cardboard and paper were examined and it transpired that damage by wetting was caused by whisky, a jar of which liquor had travelled with the cloth and was later found broken. It might have been suggested that the manufacturers of the cloth wished that there should be no possible doubt of its origin!

10. Spectrophotometry

It is only necessary here to summarise in tabular form samples bearing a miscellaneous number and which received consideration from the spectrographic section.

Chlorophyll	..	..	..	..	..	21
Carotene	..	..	..	..	..	2
Xanthophyll	..	..	..	..	..	2
Rare Earths	..	..	..	..	..	29
Bones	..	..	..	..	..	10
Coal	..	..	..	..	..	13
Charcoal and carbon	..	..	..	..	..	10
General	..	..	..	..	..	31
						118

11. Civil Defence

Mention will be made later of activities in connection with Civil Defence, but from the sample point of view only one sludge was submitted for examination. This was obtained from the Netham site which it is intended to develop as a training ground. The sludge contained 0.2 per cent of arsenic and compares favourably with a similar type of specimen examined in 1951 when 3.8 per cent of arsenic was present. Even 0.2 per cent must be regarded as potentially dangerous, unless the whole area can be adequately sealed off.

CORPORATION DEPARTMENTS

12. Central Purchasing Department

Early in the year a number of well known disinfectant solutions were examined for general efficiency in order that recommendations could be made to other departments of the Corporation in an attempt to restrict usage to a few such products, rather than the hitherto somewhat heterogeneous collection.

A number of washing powders, detergents and liquid soaps were tested and in general favourable comment was possible.

Varnishes and Red Lead paints complied with the appropriate British Standards Specification.

A cornflour and a custard powder proved satisfactory in all respects and were recommended for acceptance on contract.

13. Port Health

Sampling at the port continues to increase and 185 specimens were received. The following were regarded as satisfactory and the country of origin is also indicated.

Canned Tomatoes and puree	Italy	Canned Grapes ..	
Canned Peas	Holland	Canned Pineapple ..	
Beef Loaf		Canned Apricots ..	
Pork Sausages	Australia	Canned Pineapple Juice ..	
Loganberries		Canned Pears	South Africa
Lawtonberries		Canned Peaches	
Canned Garden Peas ..		Canned Stringless Beans ..	
Canned Youngberries ..		Canned Pilchards	
Rock Lobster		Canned Tomato Juice ..	
Canned Asparagus Soup		Canned Peanut Butter ..	
Canned Asparagus spears		Blackcurrant Jam	
Canned Stewed Steak ..		Canned Tomatoes	West Indies
Canned Strawberries ..		Mandarin Oranges	Japan
Canned Beans in Tomato	South Africa	Fruit Salad	Jamaica
		Mango Cubes	
		Orange Juice	
		Canned Tomatoes	Spain

Of the unsatisfactory samples the following are of interest :—

Canned Sausages	Aerobic and Anaerobic organisms present.
Canned Tomatoes	High copper content and bacteriologically doubtful.
Bottled peaches	Visible dirt 400 parts per million of which 200 parts were siliceous matter. Metal fragments were also found.
Canned Salmon	Of considerable storage life and containing lead 8 parts per million and tin 120 parts per million.
Canned Tomatoes	Tin approaching 2 grams per pound. Early disposal recommended.
Canned Chicken Soup ..	Heavy growth of gram positive aerobes.
Peaches in syrup	Badly fermented. Traces of tin present.
Currants. Sultanias	Both had suffered sea water damage. Currants were fermenting.

Mincemeat	Tallowy flavour. Fat very rancid.
Canned Stewed Steak ..	High proportion of blown cans.
Dried Raisins	Badly overheated to the point of charring.
Sweetened fat	This product was 100 per cent coconut fat with no evidence of any sweetening agent.
Canned plums	High proportion of blown cans and some hydrogen swells.

14. City Engineer

Two hundred soil samples were examined for the presence of sulphur trioxide. If the available SO_3 produced by acting upon the soil with 1 : 1 hydrochloric acid is found to exceed 0.25 per cent, there is a possibility that the soil may have serious effects upon cement foundation work and in certain cases, sulphate resisting cements may be required. The matter is of considerable economic importance in the city's new Housing sites for the resistant alumina cements are both expensive and difficult to work. Of the 200 soils examined, 50 were regarded as containing excessive available sulphur trioxide whilst a further 20 were doubtful.

The sites involved were at Highridge Common, Bishopsworth, Hartcliffe, Withywood and Ashton Park.

One subsoil water was also examined for sulphates (as SO_3) and this was regarded as satisfactory. The limiting concentration for subsoil water has been provisionally accepted at 30 to 40 parts per million.

An exceptionally fine crystal specimen of calcium carbonate with traces of nickel and magnesium found in the Portway tunnel was examined. The age of the specimen was assessed by geologists to be of the order of 200 million years, a sobering thought upon man's relatively brief span.

15. City Architect

Six specimens were examined and these included four soils, one block of lignacite and some chippings. The latter were not regarded as granite in the accepted sense and consisted of igneous rock with alkali felspar. In this matter my thanks are due to the Department of Geology who also added the information that the source of the chippings was a Devonian intrusion, possibly in the Trusham area near Newton Abbot.

The block of lignacite was submitted in relation to serious faults developing in the structure of the new building of the Police Traffic Department. The building was visited and much useful information obtained concerning the foundations of the structure.

16. Port of Bristol

The following six specimens were examined.

Hardened grain	Found to be partially carbonised wheat starch with lubricating oil and wax.
Camel hair mop for Drawing office use	The serious loss of hair was due to the depredations of the common clothes moth. A large number of brushes had suffered this upon long storage.
Two samples of bitumastic solution	No undue acidity, in fact both solutions were very faintly alkaline.

Antifreeze solution	..	..	Proved to be ethylene glycol without additives of any description.
Lead paint	..	..	Complied with B.S.S. No. 1011, 1942.

17. City Police

The four samples of soil submitted by the police related to the explosion in a garage in Ashley Road. They were examined for sulphur trioxide, chloride, acidity and pH. It was considered unlikely that these soils, taken from around the petrol storage tanks, would cause any serious or rapid attack upon steel tanks, although the trace of sulphur trioxide may progressively cause perforation in the course of years.

18. Housing Department

Considerable trouble has been caused to the Housing Department upon several occasions when complaints of blocking of sink wastes have occurred in housing sites. Portions of pipe and certain deposits were taken upon receipt of one such complaint and the deposits were found to consist primarily of urea and ammonium salts. The implication is that urine had passed via the waste pipe with considerable regularity indicating that the kitchen sink had most certainly been used for purposes for which it was not intended.

19. Transport and Cleansing

Seven samples of Pig Food were examined and found to be satisfactory in respect of moisture, ash, protein and fibre.

20. Rat Repression Officer

Two dead fowls were received and examined particularly for arsenic and zinc phosphide with negative results. The birds were in poor condition and examination by a poultry expert suggested a condition known as "thinners". A specimen of prepared zinc phosphide bait was submitted for control purposes.

21. Gloucester County Council

Summary of miscellaneous samples :—

Milk	..	..	..	..	..	..	5
Water	..	..	..	..	..	..	4
Soil	..	..	..	..	..	..	1
Ice Lollies and Mixes				..	..	..	4
Ice Cream	..	..		..	..	..	42
Petroleum Products	..			..	..	..	17
Fruit leaves and bark				..	..	..	20
Vitamin E concentrate				..	..	..	1
Canned Luncheon Meat				..	..	..	1
Lead peroxide (special)				..	..	..	6

The milks were required to be examined for fat and solids-not-fat and with one exception proved satisfactory. The Ice Lollies and mixes were examined in relation to an eventual prosecution for generally dirty premises. The defence was at one juncture preparing to contest the point as to whether ice lollies could be regarded as foods. In the actual proceedings the point was not taken and it was generally felt that the Ice Cream Alliance would not support such a point and that pressure was being brought to insist that premises used to prepare ice lollies should be registered in the same way as for ice cream. The prosecution succeeded in carrying eight of the ten counts and a fine of £42 was inflicted.

The petroleum products were examined for flash point and again matter was closely related to the findings in the Ashley Road disaster. It is most welcome to see that attempts are being made to tighten up the regulations relating to highly inflammable solvents, sprays, thinners and lacquers.

The fruit, leaves, bark specimen and the lead peroxide tests were required for the information of the County Council in connection with alleged damage to fruit trees in the Hallen area.

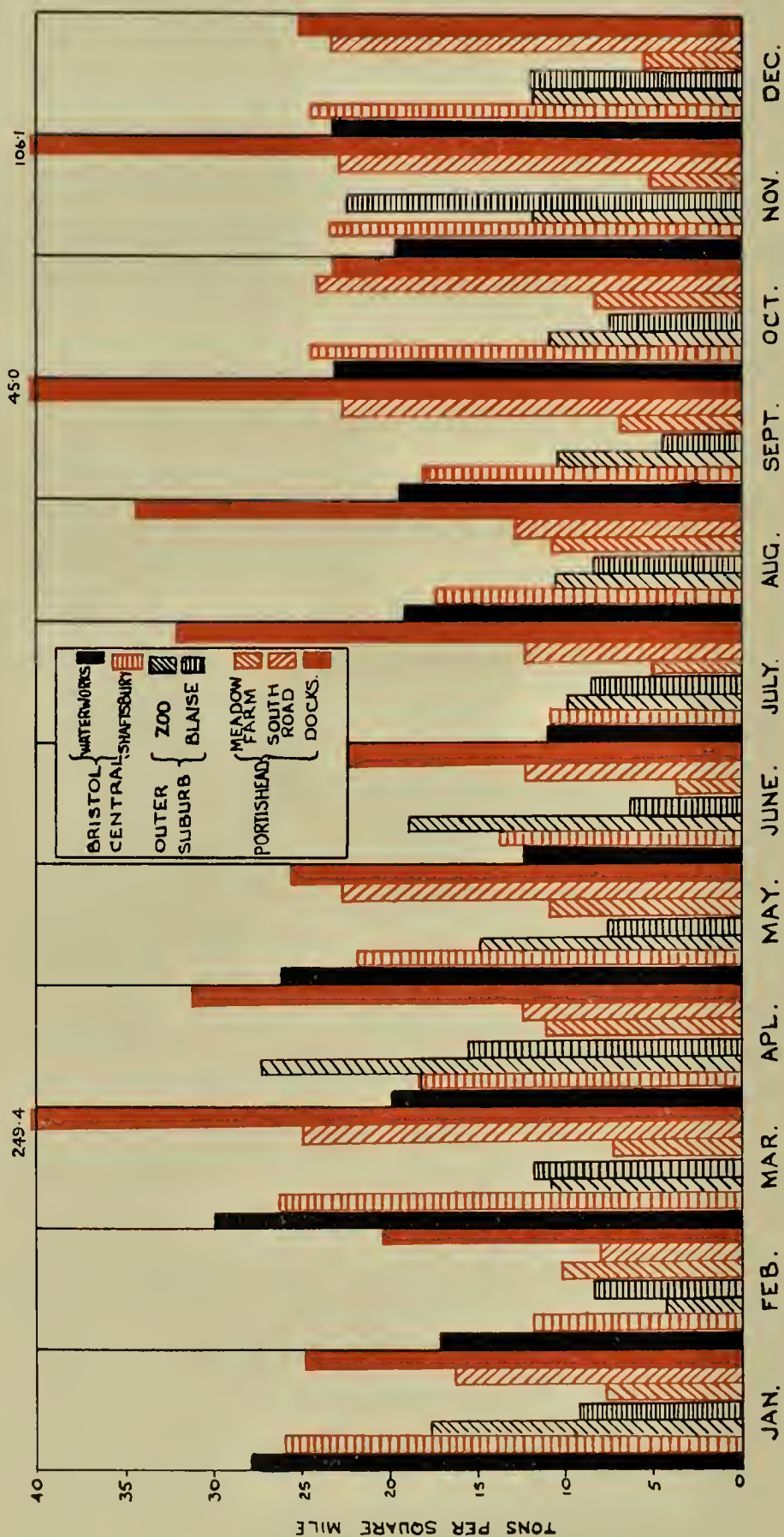
PART VI. POISONS AND PHARMACY ACT 1933

Five samples were submitted and commented upon as follows :—

P. & P.1, D.N.C.			
<i>Winter Wash</i>	..	..	The adhesive label was admittedly a temporary measure but the detail should be incorporated with the directions and greater prominence given to the word "Poisonous". The product should be prepared and used in strict accordance with the directions and further should only be used by reasonably skilled and intelligent persons.
P. & P.2 and 4. <i>Lysol</i>	..		These articles are correctly labelled as required in the Pharmacy & Poisons Act 1933. All that is required on the label is the statement "Poison. For external use only". No declaration of the phenolic content is necessary if the product is designated "B.P."
P. & P.3. <i>Ammonia</i>	..		This product was found to contain 11.2 per cent w/w of ammonia as against a stated minimum of 15 per cent w/w.
P. & P.5. <i>Jeyes' Fluid</i>	..		Chemical reactions upon a distillate from this product indicated the complete absence of phenols but confirmed the presence of naphthols. The product therefore contains no Part II Poisons as naphthols do not appear in the lists.

ATMOSPHERIC POLLUTION 1952

TOTAL SOLID MATTER (SUSPENDED AND DISSOLVED.)



PART VII. ATMOSPHERIC POLLUTION

The table summarises recordings made under this Section.

Table 10

Deposit gauges	84
Lead peroxide for sulphur	132
Continuous smoke and sulphur dioxide estimations	308
Zinc and fluorine determinations	23
Phosphorus and silica	36
	583

The City

The three city stations, Waterworks, Shaftesbury Crusade and the Zoo together with the rural control gauge at Blaise Castle were fully operative throughout the year.

The degree of pollution is measured by collection of the rainfall each month and the analysis of this rainwater for soluble, insoluble and tarry matters together with determination of calcium, chloride, sulphate and pH. The collecting bowl is of known area and feeds the rain into a bottle of some 10 litres capacity. At periods of heavy rain each site is inspected about mid-month or as appropriate.

Table 11

	<i>Rain ins.</i>	<i>Tons per sq. mile Total deposit</i>	<i>Range of SO₂ in mgms. per 100 sq. cm. per day</i>
Shaftesbury Crusade, St. Phillip's	32.06	234.7	1.16—3.68
Waterworks Office, Marsh Street	35.25	248.0	0.90—3.48
Zoological Gardens	37.09	157.9	0.13—1.09
Blaise Castle	32.57	122.5	0.03—1.02

The depositions of Shaftesbury and Waterworks are much the same as in 1951 but those at the Zoological Gardens and Blaise Castle are appreciably heavier.

The range of variations of the sulphur dioxide pollution as measured by the lead peroxide cylinders, has remained much the same for all four stations when compared with the 1951 figures.

It will be noted that pollution at Blaise Castle might be expected to increase somewhat in view of the increased housing in the area. The pollution level is about half that of areas of heavier pollution in the city.

Such pollution within the city will be caused by industry and domestic fires, whereas the pollution in the area of the Zoological Gardens will be, in the main, due to domestic fires. The latter, therefore, remain a very

heavy source of pollution and broadly speaking, in this City at least, the domestic open fire causes as much pollution as does industry.

Continuous Smoke and Sulphur Dioxide Recordings

Records were kept on 308 days of the year and were primarily intended to provide smoke filters for submission to the Medical Research Council. However, in late 1951 the Council requested that provision of the filters should cease for the time being, but for continuity of laboratory records now the work is so well in hand and equally simple of operation, the unit has been kept working.

The investigation on the smoke filters was made to provide information upon the amounts of benzpyrene, arsenic and radioactive material in the atmosphere and the work was undertaken by a research team under Sir Ernest Kennaway working in the Pathological Department, St. Bartholomew's Hospital, London. The finding of the team was summarised as follows: *British Journal of Cancer*, Vol. VI, pp. 1, 8, 22:—"Benzpyrene had been detected in samples of smoke drawn from the air at eight different towns in England. The concentration rises sharply during the winter and there is a tendency for the mean annual values to increase with the size of the town. A large part seems to come from domestic fires but it has been detected also in the exhaust from internal combustion engines. None has been found in cigarette smoke".

The mean annual concentration of benzpyrene in air ranged from 4.6 micrograms per 100 cubic metres in London to 1.3 in Bristol.

"The arsenic content of air in eight towns in England has been estimated at various seasons of the year. A range in these quantities of about three-and-a-half fold was found and the concentration in winter was about twice that in summer. These amounts are compared with those which might be liberated in cigarette smoking and a possible summation of carcinogenic effects is discussed".

Bristol compared very favourably with the seven other towns. The range was 0.037 micrograms of As_2O_3 per month in Bristol to 0.132 in Beckton (London).

"Measurements of the radioactivity of the suspended matter in the air have been carried out in London at three sites, in Manchester and in the country at Rothamstead. The amounts show no considerable difference between urban and rural districts but there are large day to day variations which in situations out of doors are affected chiefly by the wind: the more stationary the air, the greater the activity. In closed places, e.g. an air raid shelter underground, the amount may be 100 or more times greater than the amounts in the street outside, but even these are small in comparison with the lowest amounts considered harmful to man."

The Avonmouth Survey

There are three sites in this area: at the Docks, "T" Farm and Green Splot Farm. All are equipped with lead peroxide cylinders and the first two with deposit gauges. The normal examination of the rainfall is not made upon these gauges but the rain water is used to assess the degree of zinc and fluorine pollution in the area. Such a method is by no means the ideal way of determining pollution by these elements and the obvious treatment would be to draw the air in the locality through an appropriate absorption train. This, however, would be difficult to control and the gauge method is retained as a matter of convenience.

The ranges of variation of the zinc and fluorine are given in Table 12. The highest and lowest amounts are given with the month of occurrence.

Table 12

		Tons per sq. mile		
		1950	1951	1952
Avonmouth Docks	Zinc	0.7 in Feb. 7.8 in Nov.	0.52 in Aug. 4.9 in Feb.	0.52 in Feb. 16.7 in Oct.
	Fluorine	0.14 in Apr. 0.35 in Jan.	0.04 in Jan. 0.17 in Apr.	0.033 in Jan. 0.375 in Oct.
"T" Farm	Zinc	0.21 in Aug. 1.03 in Jan.	0.03 in Aug. 0.83 in Feb.	0.13 in June 5.16 in Oct.
	Fluorine	0.01 in June 0.06 in Jan.	0.003 in June 0.025 in Oct.	0.015 in June 0.155 in Oct.

The 1952 figures indicate a most pronounced rise in the zinc and fluorine in October. In both cases the increases began in June and rose to the peak values indicated in the table in October. It has been the frequent comment by H.M. Inspector of Factories that the Avonmouth Dock site was a somewhat unhappy choice because of the close proximity of the overhead conveyor line which moved the zinc ores and phosphate rock from ships to either the Smelting works or the Fertiliser factory. It would appear that there is a considerable argument in favour of the Inspector's observation because the Docks office provided information indicating that there had been a 50 per cent rise in the amount of zinc concentrate handled in 1952 as compared with 1951, while the phosphate imports rose by 11 per cent in the same period.

Nevertheless the argument does not appear to have the same force in considering the "T" farm site which is certainly not so close to the conveyor and moreover is not in the line of the prevailing wind. Whatever the merits or demerits of the siting the pollution by zinc and fluorine, from factories or conveyor, seems highly undesirable.

The Portishead Survey

The four stations in this area are Portishead Dock, Power Station and South Road with Meadow Farm as the control. Three stations are equipped with both gauge and lead peroxide cylinder whilst the Power Station site is for sulphur dioxide estimation only. The results for the years 1949-1952 are tabulated.

Table 13

	Rainfall in inches				Total Deposit Tons per sq. mile			
	1952	1951	1950	1949	1952	1951	1950	1949
Portishead Dock	22.0 10 mths	30.8	35.7	26.0	234.6 10 mths	303.2	530.3	538.8
Meadow Farm	34.6	36.7	36.1	23.9	91.4	82.8	116.9	73.8
South Road	34.2	29.4 10 mths	—	—	214.2	178.1 10 mths	—	—

The deposit of 284.6 tons for the Dock site covers 10 months. The two months observations which have been omitted are those for March and November when the respective deposits were 249.4 tons and 106.1 tons. The chloride figures associated with these deposits were 110 tons and 47 tons respectively and would indicate that the gauges on these two occasions had been tampered with. Hence these results were disregarded.

Generally speaking it would appear that the full effects of the new stack at the Power station in reducing pollution became noticeable in 1951 and the level of pollution for 1952 has remained much as 1951.

Table 14

	<i>Sulphur trioxide mgms. per 100 sq. cms. per day</i>	
	<i>Lowest</i>	<i>Highest</i>
South Road	0.08 August	0.82 November
Meadow Farm	0.13 August	0.87 November
Portishead Dock	0.19 April	1.29 October
Power Station	0.10 June	0.77 November

As in previous years it is most noticeable that the lowest sulphur pollution occurs in the spring and summer months whilst the heaviest pollution is in October, November or December.

Finally the problem of silica and phosphorus deposition in the area has continued to receive attention and the data collected in 1951 and 1952 should be most useful in assessing possible pollution arising when the new Phosphorus factory comes into operation.

Table 15

	<i>Results in tons per sq. mile—Ranges</i>		
	<i>Portishead</i>	<i>Meadow Farm</i>	<i>South Road</i>
Soluble silica (SiO_2)	Trace—0.47	Trace—0.18	Trace—0.35
Insoluble silica (SiO_2)	6.04—13.18	0.32—4.22	1.09—5.86
Soluble phosphate (P_2O_5)	Trace—0.09	Nil—0.19	Nil—0.08
Insoluble phosphate (P_2O_5)	Trace—0.08	0.005—0.04	0.02—0.07

PART VIII. SPECTROPHOTOMETRY

The library of plates showing each element diluted from 10 per cent to 10 parts per million in alumina has been extended, and now covers 39 elements. Each element is recorded in three spectral ranges:—Far ultra-violet, 2600–4000 $^\circ\text{A}$, and the visible. This library facilitates the rapid qualitative analysis of any sample submitted.

Students from the University have spent a considerable time in examining zinc sulphide required for phosphors and carbon for catalysis. These

substances are required exceptionally pure and traces of unexpected contaminants, such as chromium and nickel, were revealed by the spectrograph.

The quantitative work on trace metals has been chiefly directed to a more accurate estimation of lead and tin in foods. Improvements made include the use of Seidal densities, and the Mitchell electrodes recommended by the Macaulay Institute for Soil Research.

Quantitative analysis of zinc would be a help, but this requires a triggered arc source to produce a heavy current for a few thousandths of a second, as the ordinary arc volatilises the zinc before the spectrum is fully excited. We hope to obtain this source in the near future.

Dr. D. D. Eley of the University has kindly allowed us the use of his Unicam spectrophotometer. With this instrument and the recent British Pharmacopoeia specification, we are able to estimate Vitamin A, using the ultra-violet absorption at 328 mμ. With the same instrument, we have been examining green dye extracted from meat, in the hope of tracing a possible leakage of meat condemned and marked in the abattoirs and subsequently sold to the public.

PART IX. OTHER ACTIVITIES

This section covers a variety of activities including lectures, visits and purely consultative work.

Thus the Docks Office had made a number of enquiries during the year concerning chemical imports and in general the problem posed related to inflammability stability and storage conditions. Substances included cadmium, iodide, heptane, iso-octane, cresylic acid, monochlorobenzene, sodium naphthenate, vinyl acetate, acetone.

The Docks Office also sought information on methods of measuring dusts and in particular the handling problems arising from the importation of Syrian grain.

The Town Clerk's department sought information upon two matters, one relating to floor cleaning oil and the second to the use of bromethol for the destruction of pigeons. At Canynge Hall we are also interested in this problem and are seriously considering the organisation of a pigeon shoot.

The Education Department requested information upon a standard teaspoon and detail of such an article is provided in a British Standard Specification.

The Chief Sanitary Inspector asked for chemical assistance in assessing possible danger to health arising from car exhaust fumes at a Motor Auction Saleroom. The concentration of carbon monoxide, under the worst conditions, was found to be less than 1 part per 12,000 and no great danger to health need be anticipated as the premises were extremely well ventilated.

A complaint of bad ventilation in premises in Winterstoke Road was investigated as far as was possible, for there were doubts as to how far the matter could be considered as a Public Health problem, the more so as the complaint had been anonymous.

A number of general talks were given to interested parties both at the laboratory and on request by clubs. Not the least interesting experiences resulted from lectures given at Leyhill and Falfield to inmates at Her Majesty's Prisons.

Civil Defence activity was very lively for three members of the Staff and I have to report that Mr. Dembrey, Mr. Naish and myself have now completed courses at Falfield and the University. Further, I have had

the advantage of a five-day course at the Chemical Warfare School and this was followed by twelve lectures on the subject, delivered to Technical Reconnaissance Officers in December.

Assistance was given to Dr. O. D. Beresford of the Cancer Clinic, Regina, Saskatchewan who requested analytical data upon the Bristol water supply for a comparison of the incidence of osteophytosis of the lumbar spine.

Finally mention should be made of the overseas visitors to the Laboratory. These included two government officials from the Sudan and the Head of the Central Bureau of Criminal Investigation, Helsinki, Finland.

PORT HEALTH SERVICES

Medical Inspection and Sanitary Circumstances

By

Dr. D. T. Richards

Senior Medical Officer (Port)

This report is prepared on the lines indicated in the revised memorandum, Form Port 20, issued by the Ministry of Health to Port Health Authorities. Most of the standing arrangements described hereunder have remained substantially similar to those in operation during past years but have been included in the report for 1952 in order to provide a more comprehensive picture of the measures of hygiene control in operation at the port. It is anticipated, at this stage, that this information will be recapitulated in the report for 1955 and thereafter quinquennially.

SECTION I—TABLE A

Name of Officer	Nature of appointment	Date of appointment		Qualifications	Any other appointments held
		(a) Original	(b) To present post		
Richards, Dr. D. T. ...	Sen. Medical Officer (Port) ...	1.11.38	13.1.47	L.R.C.P.(Lond.), M.R.C.S.(Eng.), D.P.H. Certs. of R.S.I., S.I.E.J.B., R.S.I., Meat and Other Foods Cert. Testamur Welsh School of Medicine in Public Health and Hygiene. Master Mariner (Foreign-going). Certs. R.S.I., S.I.E.J.B., R.S.I., Meat and Other Foods Cert. Master Mari- ner (Foreign-going). Certs. of R.S.I., S.I.E.J.B., Lieut. (R.N.V.R.—H.O.) Cert. R.S.I., S.I.E.J.B. "Second Mates", Board of Trade Cert. (Foreign- going) steamship. Master Mariners Cert.	—
Davies, E. I. ...	Sen. Port Health Inspector ...	13.5.37	1.11.43		
Earthrowl, N. A. C. ...	District Sanitary Inspector (Port).	15.11.37	Dec. 1940		
Perkins, W. M. ...	District Sanitary Inspector (Port)	1.9.46	1.9.46	—	—
Spencer, F. ...	District Sanitary Inspector (Port).	15.4.52	15.4.52		
Bowen, W. T. ...	Assistant to the Port Inspectors	27.1.36	27.1.36		
Baston, C. W. ...	Assistant to the Port Inspectors	13.2.38	13.2.38	—	—
Robinson, C. W. ...	Clerical ...	30.9.40	6.7.48	—	—

IN ADDITION.—The following Assistant M.O.s undertake relief Port duties as required: Drs. R. J. Irving Bell, A. M. Fraser, B. J. Boulton, S. W. W. Terry and J. E. Krzywicz Kaye.
 Dr. R. H. Parry, Medical Officer of Health, is Port Medical Officer. Dr. R. C. Wofinden, Deputy Medical Officer of Health, is Deputy Port Medical Officer. Mr. F. J. Redstone, Chief Sanitary Inspector, is Chief Port Inspector.

INTRODUCTION

New Legislation.

On October 1st 1952, the Public Health (Ships) Regulations and the Public Health (Aircraft) Regulations came into force. They replace the Port Health Regulations of 1933 and 1945 and the Public Health (Aircraft) Regulations of 1950, and give effect, in this country, to the International Sanitary Regulations (1951) adopted by the Fourth World Health Assembly in May, 1951.

The principal variations from the Port Health Regulations are as follows:

1. "*Excepted Port*".

Following an agreement between the Brussels Treaty Powers, the previous "home trade" limit (River Elbe to Brest), which was used for excepting certain ships from the requirements relating to "Foreign-going" ships, has been extended to include the remainder of the European coast of France; the eastern limit now being the Kiel Canal.

2. "*Quarantinable Diseases*".

This is a new term, introduced to describe the diseases formerly known as the "Convention" diseases, with the addition of relapsing fever because its epidemiological characteristics are identical with those of typhus.

3. "*Infected*" and "*Suspected*" ships.

These expressions have been re-defined.

4. *Radio pratique*.

To accord with the International Sanitary Regulations provision has been included to enable permission to dock to be given to a ship by radio, when, on the basis of information received from it prior to arrival, the port health authority is satisfied that its arrival will not result in the introduction or spread of a quarantinable disease.

5. *Signals*.

The flag signals QQ, denoting "My ship is suspect", and QL, "My ship is infected" are no longer appropriate. The international three flag signal LIM meaning "I require the Port Medical Officer" is now used to replace them, and has the additional advantage that it can be used in other circumstances requiring the boarding of a ship by the port medical officer, for instance, if any of the questions in the new Maritime Declaration of Health are answered in the affirmative.

By day, therefore, the flag signals which must be flown at the masthead are the LIM when the port medical officer is required, or the Q (except when a vessel is engaged in regular packet-boat or excursion traffic with a port in France, Belgium or Holland). Between sunset and sunrise the corresponding Morse signals are flashed by lamp, and a signal, consisting of a red light over a white light, the lights being not more than six feet apart, is hoisted at the peak in all cases.

6. *Maritime Declaration of Health*.

This declaration must be completed by the master of a ship arriving from a foreign port, i.e., a port outside the United Kingdom, the Channel Islands, the Isle of Man or the Irish Republic, unless it is an "excepted"

port. The form of declaration has been slightly modified, and the time for which particulars of health are asked has been shortened from six weeks to four weeks.

7. "*Additional Measures*".

These replace the old "prescribed measures". They have been simplified, and it is to be noted that, in some circumstances, ships and persons may now be dealt with solely because they have come from infected areas.

Further amendments are referred to in later sections of this report.

The Public Health (Aircraft) Regulations, 1952, have been brought into line with the Public Health (Ships) Regulations and are substantially similar. Two important sections are worthy of comment:

1. *Notification of infectious disease, etc., on board.*

The commander of an aircraft is now clearly under an obligation to send a radio message before arrival and to notify the medical officer immediately on arrival when there is any circumstance on board which is likely to lead to infection or the spread of infectious disease, etc.

2. *Aircraft from Excepted Area.*

Provision is now made (Regulation 26) to meet the possible need for applying the Regulations quickly, in abnormal circumstances, to an aircraft which, having voyaged from a point within the Excepted Area, would be otherwise exempt from control. This power is included to meet exceptional circumstances only.

Few operational changes have been brought about by these new Regulations. The procedure, at the airport and the seaport, is that your medical officer is in attendance under the following circumstances:

- (i) When sickness or any other suspicious circumstance is reported.
- (ii) When a vessel or aircraft has voyaged from an infected area.
- (iii) When a medical opinion on an alien is required.

SECTION II

Amount of Shipping Entering the District During the Year

Bristol, like all the other major ports of this country, has felt the effects of the national policy curtailing imports during 1952.

Arrivals from "foreign", totalling 1,020, were 260 less than in the previous year; foreign cargo imports and exports were reduced by approximately 630,000 tons and 120,000 tons respectively. With a few exceptions, such as maize, frozen meat, tea, fresh and dried fruit, ore and steel, the decline in imports applied to almost all kinds of merchandise, but especially to petroleum products, timber, flour, sugar, grain, tobacco, and paper.

A comparative table showing the tonnages of foreign imports and exports with foreign and coastwise arrivals for the last three years is given below.

<i>Year</i>	<i>Vessels normally trading.</i>		<i>Tonnage of</i>	
	<i>Foreign</i>	<i>Coastwise</i>	<i>Imports</i>	<i>Exports</i>
1950	1,118	7,877	2,932,234	110,869
1951	1,280	8,911	3,439,379	168,847
1952	1,020	8,504	2,806,634	88,602

Table B**Amount of Shipping Entering the District During the Year**

Ships from	Number*	Tonnage*	Number inspected		No. of ships reported as having or having had during the voyage infectious disease on board†
			by the Medical Officer of Health	by the Sanitary Inspector	
Foreign ports	1,020	2,727,080	591	1,161	14
Coastwise	5,035	1,431,395	—	713	—
Total	6,055	4,158,475	591	1,874	14

* Figures supplied by courtesy of the Port of Bristol Authority. (Discrepancy between number of vessels shown as arriving and number inspected in foreign section arises from differing classification of "foreign" and "coastwise" vessels as applied by the Port of Bristol Authority and the Bristol Port Health Authority).

† Excluding vessels having venereal disease on board.

SECTION III

Table C (a)

Passenger Traffic

		Seaport	Airport
Inwards	British	1,850	1
	Alien	174	23
Outwards	British	1,524	3
	Alien	84	13

Table C (b) Cargo Traffic

Principal Imports 1952

<i>Commodities</i>								<i>Tons</i>
Cocoa	...	...	...	...	...	...	...	17,699
Feeding Stuffs for Livestock	...	...	...	...	...	...	...	103,589
Fertilisers	...	...	...	...	...	...	...	111,842
Flour and other Cereal Products	...	...	...	...	...	...	...	44,517
Fruit:								
Bananas	...	...	...	...	...	...	...	44,783
Citrus	...	...	...	...	...	...	...	11,824
Dried	...	...	...	...	...	...	...	10,714
Other Kinds	...	...	...	...	...	...	...	8,039
Grain:								
Barley	...	...	...	...	...	...	...	124,292
Maize	...	...	...	...	...	...	...	191,159
Wheat	...	...	...	...	...	...	...	472,708
Other Kinds	...	...	...	...	...	...	...	25,577
Metals:								
Aluminium	...	...	...	...	...	...	...	45,698
Copper	...	...	...	...	...	...	...	6,689
Iron and Steel	...	...	...	...	...	...	...	29,875
Other Kinds	...	...	...	...	...	...	...	15,729
Molasses	...	...	...	...	...	...	...	32,645
Oilseeds and Oilnuts	...	...	...	...	...	...	...	30,427
Ores	...	...	...	...	...	...	...	172,684
Paper	...	...	...	...	...	...	...	20,623
Petroleum:								
Spirit	...	...	...	...	...	...	...	421,686
Other Kinds	...	...	...	...	...	...	...	416,639
Provisions:								
Butter	...	...	...	...	...	...	...	10,646
Cheese	...	...	...	...	...	...	...	8,547
Lard	...	...	...	...	...	...	...	6,530
Meat: Bacon and Ham	...	...	...	...	...	...	...	765
Canned, etc.	...	...	...	...	...	...	...	3,035
Frozen	...	...	...	...	...	...	...	37,547
Other Kinds	...	...	...	...	...	...	...	—

Table C (b)—*contd.*

<i>Commodities</i>								<i>Tons</i>
Sugar	...	...	...	...	...	...	...	12,552
Tea	...	...	...	...	...	...	...	5,507
Timber: Hewn, Sawn and Prepared	...	...	...	...	...	...	...	136,820
Tobacco	...	...	...	...	...	...	...	24,033
Wines and Spirits	...	...	...	...	...	...	...	7,260
Woodpulp	...	...	...	...	...	...	...	95,035
Other Goods	...	...	...	...	...	...	...	98,919
Total Foreign Imports								2,806,634

Principal Exports 1952

Buildings, Prefabricated	...	...	...	...	...	...	...	3,347
Cement	...	...	...	...	...	...	...	14
Chemicals	...	...	...	...	...	...	...	2,431
Clay	...	...	...	...	...	...	...	13,151
Cocoa	...	...	...	...	...	...	...	2,211
Coke	...	...	...	...	...	...	...	10,771
Iron and Steel	...	...	...	...	...	...	...	8,183
Motor Cars and Parts	...	...	...	...	...	...	...	15,868
Painters' Colours	...	...	...	...	...	...	...	580
Paper	...	...	...	...	...	...	...	910
Petroleum	...	...	...	...	...	...	...	2,175
Strontia	...	...	...	...	...	...	...	6,174
Other Goods	...	...	...	...	...	...	...	22,787
Total Foreign Exports								88,602

Note: Figures supplied by courtesy of Port of Bristol Authority.

Table C (c)

Principal Ports from which Ships Arrive

<i>Country</i>	<i>Ports</i>
Algeria	Algiers, Mostaganem.
Argentina	Buenos Aires, Rosario.
Australia	Adelaide, Freemantle, Geelong, Hobart, Melbourne, Port Kembla, Port Pirie, Sydney.
Belgian Congo	Matadi.
Belgium	Antwerp, Ghent.
Bermudas Is.	...
British North Borneo	Rejanz.
British West Indies	Bowden, Kingstown, Montego Bay, Oracabessa, Port Antonio, St. Kitts, Trinidad.
Burma	Akyab, Rangoon.
Canada	Botwood, Halifax, Montreal, New Westminster, Port Alberni, Port Alfred, Port Churchill, Quebec, St. John, Three Rivers, Vancouver.
Canary Is.	Madeira.

Table C (c)—*contd.*

<i>Country</i>	<i>Ports</i>
Ceylon	Colombo.
Chile	Coronel, Tocopilla.
China	Dairen.
Cuba	Cienfuegos, Havanna.
Cyprus	Famagusta, Limassol.
Cyrenaica	Tripoli.
Denmark	Copenhagen, Frederikssund.
Dominica	Roseau.
Egypt	Alexandria.
Eire	Cork, Dublin, Limerick.
Finland	Abo, Hamina, Hango, Haukipudas, Helsingfors, Kotka.
France	Bayonne, Bordeaux, Deauville, Dieppe, Dunkirk, Havre, La Rochelle, L'Orient, Marseilles, Nantes, Nemours, Rouen, Tonnay-Charente.
French Cameroons ...	Tiko Is.
French Equatorial Africa	Dakar, Grand Bassam, Libreville, Monrovia, Port Gentil.
Gambia	Bathurst.
Germany	Bremen, Bremerhaven, Emden, Friedrichshaven, Hamburg, Harborg, Stettin, Wismar.
Gold Coast	Accra, Freetown, Gambia, Takoradi.
Greece	Patras, Zante.
Hong Kong	
Indian Union	Bombay, Calcutta, Vizagapatam.
Indonesia	Sourabaya.
Iran	Basra.
Iraq	Fau.
Israel	Haifa.
Italy	Genoa, Livorno, Napoli, Palermo.
Japan	Kobe, Yokohama.
Jugoslavia	Rijeka, Split.
Kenya	Mombassa.
Kuwait	Mena al Ahmadi.
Malaya	Port Swettenham, Singapore.
Mexico	Corral, Tampico.
Morocco	Casablanca, Saffi, Sousse.
Mozambique	Beira, Mozambique.
Netherlands	Amsterdam, Delfzyl, Dordrecht, Rotterdam.
Netherlands West Indies	Aruba, Curacao.
New Zealand	Auckland, Bluff, Port Chalmers, Lyttleton, New Plymouth, Otaru, Napier, Port Chalmers, Timaru, Wellington.
Nigeria	Lagos, Port Harcourt, Sapele.
Norway	Bergen, Oslo, Risor, Skein, Stavanger, Tredstrand.
Pakistan	Chittagong, Karachi.
Panama	
Persian Gulf	Bahrein Is., Ras Tanura.
Peru	Callao.

Table C (c)—*contd.*

<i>Country</i>	<i>Ports</i>
Portugal	Lisbon, Oporto.
Puerto Rico	San Juan.
Rumania	Constanza.
Siam	Kohsichang.
South West Africa	Walvis Bay.
Spain	Barcelona, Cadiz, Huelva, Seville, Valencia.
Sudan	Port Sudan.
Sweden	Gelfe, Gothenburg, Iggesund, Kramfors, Malmo, Nyhammar, Stockholm, Sundsvall.
Syria	Lattakia.
Tanganyika	Dar es Salaam, Zanzibar.
Tunisia	Sfax, Tunis.
Turkey	Iskanderun, Istanbul.
Uruguay	Puerto la Cruz.
Union of South Africa	Cape Town, Durban, East London.
Union of Soviet Socialist Republics	Igarka, Kherson, Novorossisk, Odessa.
United States of America	Baltimore, Baton Rouge, Baytown, Beaumont, Boston, Freeport, Galveston, Houston, Los Angeles, New Orleans, New York, Norfolk, Philadelphia, Port Sulphur, San Francisco, Texas City, Willmington.
Venezuela	Punta Cardon.

SECTION IV**Inland Barge Traffic**

Number of craft entering during the year :		3,469
Tonnage of craft entering during the year :		305,993
Places served by the traffic :		
Banbury	Newport	
Barry	Sharpness	
Bridgewater	Stourport	
Cardiff	Swansea	
Frampton	Upton	
Gloucester	Worcester	
Lydney		

SECTION V**Water Supply**

- (1). *Source of supply for—*
 (a) *the district.*

Water, supplied by the Bristol Waterworks Company, is available to all premises in the dock area.

- (b) *shipping.*

Fresh water mains, carrying the Bristol Waterworks supply, are laid on to the quayside berths, except in one small section of the City docks.

(2). *Reports of tests for contamination.*

Routine samples were drawn from various points on the Water Company's supply mains during the year. These were found to be satisfactory.

(3). *Precautions taken against contamination of hydrants and hosepipes.*

Standpipes and hoses, used to convey water from the quayside mains to ships, are regularly flushed out and cleansed. Water is allowed to run free for a few minutes before being delivered to the ship's tanks. Samples are periodically submitted for chemical and bacteriological analysis.

(4) *Number and sanitary condition of water boats, and powers of control by the Authority.*

Only one such boat is available. This craft has a tank of six tons capacity. Periodical samples of water taken from this tank have been found to be satisfactory.

SECTION VI

Public Health (Ships) Regulations, 1952

(1). **List of Infected Areas (Regulation 6).**

This list is prepared and brought up to date monthly. It summarizes the information contained in the Weekly Record of Quarantinable Diseases prepared for the guidance of Port Health Authorities and is regularly circulated as follows, any important addition being subsequently forwarded during the month as a separate memorandum when advisable.

H.M. Customs and Excise (Seaport and Airport).
H.M. Immigration Officer (Seaport and Airport).
Docks Superintendent.
Haven Master (for Pilots).
Manager, Airport.
Medical Officers, Shipping Federation.
Medical Officers, Special Treatment Centres.
Port Medical Officer, Gloucester.
Harbour Master, Sharpness.

(2) **Radio Messages.**

- (a) *Arrangements for sending permission by radio for ships to enter the district (Regulation 13).*

These have not been brought into operation at the Port of Bristol.

- (b) *Arrangements for receiving messages by radio from ships and for acting thereon (Regulation 14(1)(a) and (2)).*

If there is any circumstance on board requiring the attention of the medical officer a wireless message is relayed to "Portelth" Bristol via Burnham-on-Sea Radio or Lands End Radio, giving the necessary details. These messages are forwarded from the Central Health Clinic upon receipt to the port medical officer and senior port health inspector for appropriate action.

(3) Notifications Otherwise than by Radio (Regulation 14(1)(b)).

Arrangements for receiving notifications otherwise than by radio and for acting thereon.

Visual signals for transmission to the port medical officer are in certain cases, directed to the Port Authority's signal station at Walton Bay.

(4) Mooring Stations (Regulations 22 to 30).

Situation of stations, and any standing directions issued under these Regulations.

(a) Inner mooring stations.

Avonmouth—

i. Royal Edward Dock—North Wall.

ii. Old Dock—Dolphin Buoy.

Bristol—

Railway Wharf.

Portishead—

No. 1 Shed.

(b). Outer mooring station.

Avonmouth, Bristol, and Portishead Docks—
Walton Bay.

All vessels, coastwise or from foreign, are boarded at the locks on arrival by the health inspector on tidal watch. All such vessels from infected foreign ports, all vessels reporting sickness, and all vessels requiring measures to be taken under the Aliens' Order, are boarded by the medical officer. "Infected" or "suspected" ships are boarded by the medical officer and health inspector at Walton Bay from a tug chartered for this purpose. For these reasons, no standing directions have been issued under the Regulations.

(5) Arrangements for:**(a). Hospital accommodation for infectious diseases (other than smallpox see Section VII).**

Patients suffering from infectious disease, and all cases requiring observation are removed to the isolation hospital at Ham Green.

(b). Surveillance and follow up of contacts.

Inspectors make daily visits to all vessels in port which have arrived from or called at infected or suspected ports and secure a signed report concerning the health of the crews from the officer-in-charge. On arrival, destinations of passengers and crew are also obtained as a routine in respect of these ships. Any sickness developing after arrival is thus brought immediately to the notice of the medical officer. When surveillance is required, forward notices, giving the appropriate information, are posted to the medical officers of health of the districts to which contacts proceed after leaving the ship.

(c). Cleansing and disinfection of ships, persons, clothing and other articles.

The "cleansing" and disinfection of infected ships' quarters is carried out under the supervision of the inspectorial staff whenever necessary, using the appropriate disinfectant. Clothing, bedding and other articles are removed by van and treated by steam under pressure at the City Disinfecting Station. The cleansing of persons is provided for at the City Cleansing Station.

SECTION VII

Smallpox

- (1). *Name of Isolation Hospital to which smallpox cases are sent from the district.*

Cases and suspected cases of smallpox occurring within the district are sent to the smallpox wing of the Ham Green Infectious Diseases Hospital, Pill near Bristol.

- (2). *Arrangements for transport of such cases to that hospital by ambulance, giving the name of the Authority responsible for the ambulance and the vaccinal state of the ambulance crews.*

These arrangements are carried out under supervision by the ambulance service of the Bristol Corporation which is administered by the Medical Officer of Health. The vaccinal state of the ambulance crews is satisfactory and subject to continuous review.

- (3). *Names of smallpox consultants available.*

(a). Dr. J. Macrae, Medical Superintendent Ham Green Hospital, Pill, near Bristol.

(b). Dr. R. Clarke, O.B.E., Harley Lodge, Clifton Down, Bristol.

- (4). *Facilities for laboratory diagnosis of smallpox.*

The Preventive Medicine Laboratories (University of Bristol) carry out all necessary tests in this connection.

SECTION VIII

Venereal Disease.

Information as to the location, days and hours of the available facilities for the diagnosis and treatment of venereal disease among merchant seamen under international arrangements, including in-patient treatment and the steps taken to make these facilities known to seamen.

Full information concerning the situation and giving the hours during which the medical officer is in attendance at the venereal disease centres at Avonmouth and at Bristol Docks, is given to the crew of every vessel entering the port. This information is contained in handbills, which include a sketch map. These are available in several languages, and are freely distributed to each ship. When indicated, in-patient treatment under the direction of the venereal diseases consultant, is available at the Frenchay General Hospital, to which the appropriate beds have been transferred.

The arrangement whereby the port medical officer, who is usually the first to ascertain venereal conditions, acts in an additional capacity as medical officer to the venereal disease centre, has continued. This arrangement has worked satisfactorily. A high proportion of the Avonmouth shipping arrivals are of the tanker class and many of these discharge and again sail within twelve hours of docking. Medical attention at the time of arrival, such as may only be provided under the above mentioned arrangement, is therefore available without delay.

The following table relates to seamen treated at the Avonmouth Centre during the post-war period. It will be seen that the incidence of the various conditions treated during 1952 closely resembles the pattern for previous years, but that there has been a considerable decline in the incidence of syphilis amongst merchant seamen. This decline is progressive and is to a large extent due to the use of penicillin in the treatment of this disease.

Venereal Disease—Seamen Treated at Avonmouth Centre.

<i>Year</i>	<i>Syphilis</i>	<i>Chancroid</i>	<i>Gonorrhoea</i>	<i>Non V.D.</i>	<i>Total</i>
1946	67	27	254	291	639
1947	60	17	271	252	600
1948	77	20	298	179	574
1949	93	19	260	240	612
1950	62	13	226	217	518
1951	39	17	180	284	520
1952	29	20	196	223	468

Unfortunately penicillin is now, in many cases, being used in a most indiscriminate manner both in the merchant service and in some of the smaller foreign ports, and cases of clinically atypical syphilis, further obscured by negative or doubtful serological findings, are now being observed amongst seafarers seeking treatment.

SECTION IX

Table D

Cases of Notifiable and other Infectious Diseases on Ships.

Disease	Category and number of cases during the year							Number of ships concerned
	Cases landed from ships from foreign ports		Cases which have occurred on ships from foreign ports but have been disposed of before arrival		Cases landed from other ships		Total	
	Pass.	Crew	Pass.	Crew	Pass.	Crew		
Chicken Pox	1	1	1	—	—	—	3	3
Mumps ...	—	1	1	—	—	—	2	2
Pneumonia ...	—	2	—	—	—	—	2	2
Pulm. T.B....	—	6	1	—	—	—	7	7
Totals ...	1	10	3	—	—	—	14	14

SECTION X

Observations on the Occurrence of Malaria in Ships

15th April.

m.v. "**English Prince**", ex Takoradi (29.3.52).

One member of the crew of this vessel developed malaria on 3rd March. He was treated at sea with Paludrine and had fully recovered on arrival.

21st May.

m.v. "**Gambia Palm**", ex Apapa, West Africa (31.4.52).

One member of the crew developed symptoms of malaria on 10th May. He was given routine treatment during the voyage, according to the instructions contained in the Ship Captain's Medical Guide, with Quinine and Paludrine, and recovered before arrival. No other member of the crew was affected.

23rd June.

m.v. "**Deido**", ex Takoradi (1.6.52).

A member of the crew of this vessel sickened two days after arrival at Avonmouth Docks and was transferred to the Ham Green Hospital. The case was considered to be a recurrence of malaria. Routine prophylactic measures including the issue of Paludrine had been carried out during the voyage. No other member of the crew was affected.

12th July.

s.s. "**Bayano**", ex Jamaica (1.7.52).

A passenger died and was buried at sea on 12th July. The cause of death, certified by the ship's surgeon, was military tuberculosis, malaria being considered a contributory factor. On investigation it was ascertained that the patient has been receiving treatment for these conditions for some months.

19th July.

m.v. "**Maria Gorthon**", ex Takoradi, Lagos, Port Harcourt (2.7.52—11.7.52).

An oiler on this vessel sickened at sea on 18th June. He was treated with atebirin followed by quinine and had recovered by the time the vessel arrived at Texas City on 2nd July. He again sickened on 18th July when the vessel arrived at Avonmouth Docks and was transferred to Ham Green Hospital where treatment for his malaria was continued.

4th November.

s.s. "**Clan Lamont**", ex Calcutta (9.9.52 via Antwerp).

A rating on this vessel sickened three days after arrival. His illness was considered to be recurrent malaria. He was given treatment by the Shipping Federation medical officer and had fully recovered by the time the vessel sailed.

SECTION XI

Measures taken against Ships Infected with or Suspected for Plague

- (1). All vessels from infected or suspected ports are required to attach efficient rat guards to the mooring ropes.

- (2). Suitable lengths of tarred hessian are wrapped around moorings, outside the leads, when the standard types of rat guards are not available.

No ships infected with or suspected for plague arrived during the year but a total of 49 vessels arrived from plague infected ports. No measures were required in respect of 48 of these. Trapping accounted for 18 rats which were recovered from the remaining vessel.

SECTION XII

Measures Against Rodents in Ships from Foreign Ports

Public Health (Ships) Regulations, 1952 (continued).

The provisions of Regulation 19 for rodent control on ships and the issue of certificates differ in minor respects only from those contained in the Port Health Regulations, 1933-45.

Briefly, the differences are as follows:

- (1). Certificates are now referred to as De-ratting or De-ratting Exemption Certificates.
- (2). Certain ports are now listed as "Designated approved" or "Approved". The former term signifies that at the port there are experienced personal and adequate equipment to carry out satisfactory de-ratting of ships, and the Medical Officer is empowered to issue De-ratting or De-ratting Exemption Certificates.

"Approved" refers to ports where the Medical Officer of Health can issue De-ratting Exemption Certificates only.

The Medical Officer may direct the master of a rat infested vessel possessing an invalid certificate to take his ship to the nearest "Designated Approved" port convenient to the ship for the purpose of de-ratting.

The Minister of Health has confirmed that the port of Bristol is a "Designated Approved" port for the purpose of this Regulation.

Hydrogen Cyanide (Fumigation of Ships) Regulations, 1952.

These Regulations, which promulgate measures for greater safety of the public and increased protection of the operator during the fumigation of ships with Hydrogen Cyanide gas, came into operation on 1st February 1952. Regulations dealing with Hydrogen Cyanide fumigation of buildings were introduced at the same time.

Neither of these Regulations is administered by Health Authorities. The Home Office circular however, indicates that, as in the past, the co-operation of Health Officials with a knowledge of local conditions would be welcomed. The procedure whereby an Inspector is present up to the time of fumigation of a ship or building within the dock area has been maintained on each occasion.

The main provisions of these Regulations require:

- (1). Operators and their assistants to have the necessary experience of the work as defined in Regulation 5.
- (2). Operators to keep a register of all fumigations carried out and to issue "Declaration" forms, "Entry Permits" and "Clearance" certificates. The latter are issued after prescribed tests, assuring that the vessel or building is gas free, are carried out.
- (3). Undertakers to send written notices to specified officials including the Medical Officer of Health, 24 hours before commencing to fumigate a building or ship.
- (4). Written sanction must be obtained from the Medical Officer of Health when it is desired that certain types of foodstuffs be retained in a gas exposed compartment.
- (5). Certificates of Authority to be produced by all persons who for legitimate reasons must enter what is defined as a "risk" area. Such persons must also be provided with efficient gas masks.
- (6). Warning and lights to be placed in prominent positions whilst a vessel or building is under gas, and the operator and/or assistant must be continuously on the site until the ship or building is gas free.

(1) Procedure for Inspection of Ships for Rats.

(a) "Foreign-Going".

As indicated by the accompanying table, a total of 269 black rats were recovered from ships trading "foreign" during the year. Trapping accounted for 179 of these, and fumigation 90.

When it is realised that practically all cargo vessels are subjected to frequent thorough inspections and trapping, when necessary during their stay in port, the comparatively small number of rats and the remarkably few ships found to have rat evidence in any degree is an encouraging indication of the improvement in the control and elimination of rodents in ships during the last five years.

Degree of Rat Infestation Found Aboard Vessels.

<i>Number of rats per ship.</i>	<i>Number of ships.</i>	<i>Total rats recovered.</i>
1—5	8	27
6—10	2	17
11—15	3	38
16—20	3	55
21—25	2	42
26—30	1	27
31—35	2	63
Total	21	269

Note: In addition, one ship was infected with mice. A total of 69 mice were recovered after fumigation.

Regular fumigation with high concentrations of gas, elimination of unnecessary harbourages, coupled with greater attention to inspection, and extermination of rats by various other methods, both in ships and on dock sides in the major ports, have all been contributing factors in bringing this about.

(b) "*Coastwise*".

These vessels, trading beyond the limits of harbours and inland waters, but not to foreign ports, have been regularly visited to ascertain whether or not in possession of Rodent Control Certificates. The majority of them can be termed regular traders as they enter the port with cargoes sometimes as frequently as once a week. Routine inspection of the cargo holds for evidence of rats has been carried out irrespective of the validity or otherwise of the Rodent Control Certificate. It is felt that inspections—to which no objections have been raised—can be of a helpful nature for, when rat activity is found, advice can be given to the master regarding suitable measures of repression.

Fifteen Rodent Control Certificates were issued during the year, and it became necessary in the case of two ships only to send forward notices to the owners regarding the need to carry out de-ratting prior to applying for another certificate.

(c) "*Inland Water Craft*".

These craft have been thoroughly inspected at regular intervals and most of them were found to be in a rat free condition. Infestation with rats and mice to a slight degree have been ascertained in craft such as floating grain elevators, and barges which are used from time to time for storage purposes. Five black rats and seven mice were recovered from these craft after poison bait treatment.

Table E

Rodents Destroyed During the Year in Ships from Foreign Ports.

Category	Number
Black rats	269
Brown rats	—
Species not known ...	—
Sent for examination ...	159
Infected with plague ...	—

Table F

De-ratting Certificates and De-ratting Exemption Certificates issued during the Year for Ships from Foreign Ports.

No. of Deratting Certificates issued					Number of Deratting Exemption Certificates issued	Total Certificates issued
After fumigation with		After trapping	After poisoning	Total		
H.C.N.	Other fumigant					
20	—	—	—	20	119	139

- (2) **Arrangements for the bacteriological or pathological examination of rodents, with special reference to rodent plague including the number of rodents sent for examination during the year.**

A routine proportion of all rats recovered is sent for examination for evidence of B. Pestis to the University of Bristol Laboratories, Canynge Hall, Clifton. During the year 159 were sent for examination: none was found to be infected with plague.

- (3) **Arrangements in the district for de-ratting ships, the methods used, and, if done by a commercial contractor, the name of the contractor.**

De-ratting of ships is done by commercial contractors who use Hydrogen Cyanide gas for the purpose. The undermentioned firms carried out de-ratting of ships at this port during 1952:

Messrs. London Fumigation Co. Ltd., London.

Messrs. Fumigation Services Ltd., London.

Messrs. Associated Fumigators Ltd., London.

Messrs. Chas B. Brister, Newport.

Messrs. Hivey Fumigation Co. Ltd., Liverpool.

Messrs. General Fumigation Services Ltd., Swansea.

- (4) **Progress in the Rat-proofing of Ships.**

Abolition of wood sheathing in the insulated cargo holds of new ships, and the use of a minimum of wood in other ship fittings has eliminated a great deal of harbourage for rats.

In a few instances only has it been necessary to request that rat proofing be carried out, and in each case this has been to prevent rats gaining access to food stores. This was done by: (a) fitting fine meshed gauze wire netting on the underside of the hinged gratings which cover deck openings into the storerooms, and (b) the use of sheet metal to close gaps caused by pipelines passing through the bulkheads.

SECTION XIII

Inspection of Ships for Nuisances.

A total of 2,805 inspections of seamen's living accommodation in vessels trading "coastwise" and "foreign" were made during the year.

Table G
Inspection of Ships for Nuisances.

Nature of defects and inspections.	No. of inspections carried out	Notices served			No. of defects found	Result of serving notices	
		Statutory	In-formal	Forward (<i>Phas/mot</i>)		No. of defects Remedied.	<i>Not</i> Remedied.
Original construction	2,805	—	49	12	23	—	23
Structural—Wear and Tear					275	200	75
Dirt, Vermin, etc.					604	567	37
Totals	2,805	—	49	12	902	767	135

Hygiene of Crews' Spaces

Vessels Trading Coastwise and Foreign.

	British		Foreign		Totals
	s.s.	m.v.	s.s.	m.v.	
Number of revisits to vessels in dock by Inspectors	1,164	733	457	451	2,805
Number of vessels reported defective	170	52	32	6	260
Number of vessels—defects remedied	154	47	31	6	238

Hygiene of Crews' Spaces

Vessels Trading Coastwise and Foreign.

DEFECTS	No. of Ships Inspected	Original Construction		Wear and Tear		Dirt and Vermin	
Nationality		No. of ships	No. of defects	No. of ships	No. of defects	No. of ships	No. of defects
s.s. BRITISH	711	2	19	43	213	155	407
m.v.	544	1	4	19	62	49	125
s.s. FOREIGN	240	—	—	—	—	32	57
m.v.	379	—	—	—	—	6	15
Totals	1,874	3	23	62	275	242	604

DEFECTS	Number of Defects			Number of Defects reported by For'd Notices, etc., to:			Number of Ships	
	Found	Rem'd	Not Rem'd	Other PHA's	M.O.T. Surv'r	Owner Master	British	Foreign
Original Construction	23	—	23	1	5	23	3	—
Wear and Tear	275	200	75	54	—	156	62	—
Dirt Vermin and Other Causes ...	604	567	37	14	—	127	204	38
Totals	902	767	135	69	5	306	269	38

The accompanying tables give the number and nature of the defects, and the number of British and foreign ships involved. No difficulties have been encountered in obtaining the co-operation necessary to remedy the various defects found, and when, as sometimes occurs, such work could be carried out more conveniently at the terminal or repair port in the United Kingdom, a forward notice detailing the defects requiring attention has been sent to the Port Health Authority concerned.

As in previous years, a large proportion of the defects apply to dirty and verminous quarters. As usual the number of British ships involved in this respect is proportionally much greater than foreign owned vessels. This regrettable feature has often been commented upon in the past. It is true that some improvement has come about with the decline in the number of coal burning ships and the elimination of dirty working conditions for firemen; but, apart from ships where a reasonable measure of discipline, with

frequent inspections of the ratings' quarters, carried out by the Master, the standard of cleanliness, particularly in the messrooms, wash places, and W.C. accommodation, is still unsatisfactory.

Defects of "Original Construction" involving inadequate ventilating arrangements and floor drainage were referred to the Ministry of Transport surveyor and to the owners' of one vessel, and these were rectified. Sub-standard conditions in respect of two other ships were in each case brought to the notice of the owners and Ministry of Transport Surveyor. It was subsequently ascertained that both ships had terminated their commissions and were to be sold for breaking up.

SECTION XIV

Public Health (Shell-Fish) Regulations 1934 and 1948

Information respecting any shell-fish beds or layings within the jurisdiction of the Authority stating whether they are, in the opinion of the Medical Officer of Health, liable to pollution. A report of any action taken, which should state whether any prohibited area has been prescribed, should be included.

There are no shell-fish beds or layings within the jurisdiction of the Bristol Port Health Authority. The supply of shell-fish marketed in Bristol is obtained mainly from the following sources :

Cockles from St. Clair, South Wales, and King's Lynn, Norfolk.

Escallops from Brixham, South Devon.

Mussels from Appledore, North Devon, and St. Clair, South Wales.

Oyster from Cornwall, Thames Estuary, and Continental countries via London.

Winkles from Appledore, North Devon.

Whelks from King's Lynn, Norfolk.

SECTION XV

Medical Inspection of Aliens.

(Applicable only to ports approved for the landing of aliens).

(1) List of Medical Inspectors of Aliens holding warrants of appointment:

Dr. R. H. Parry—*Medical Officer of Health.*

Dr. R. C. Wofinden—*Deputy Medical Officer of Health.*

Dr. D. T. Richards—*Senior Medical Officer (Port).*

Dr. R. J. Irving Bell—*Assistant Medical Officer.*

Dr. A. M. Fraser—*Assistant Medical Officer.*

Dr. N. J. Boulton—*Assistant Medical Officer.*

(2) Other Staff:

Nil.

Medical Inspection of Aliens
Annual return by the Inspector of Aliens for year ended 31st December, 1952

	SEAPORT					AIRPORT		
	TOTAL	Number inspected by the Medical Inspector	Number sub-jected to detailed examination by Inspector	Number of Certificates issued	TOTAL	Number inspected by the Medical Inspector	Number sub-jected to examination by the Medical Inspector	Number of Certificates issued
(a) Total number of Aliens landing at the Port ...	148	142	6	—	23	23	—	—
(b) Aliens refused permission to land by Immigration Officer ...	26	25	1	1	—	—	—	—
(c) Total Aliens arriving at the Port ...	174	167	7	1	23	23	—	—

Total number of vessels/aircraft carrying alien passengers:	Inwards		Outwards		Seaport	Airport
	Seaport	Airport	Seaport	Airport		
Number of vessels/aircraft dealt with by the Medical Inspector:	68	4	68	4	—	—

(3) Organisation of Work.

Standing arrangements are that the medical officer on tidal duty is available when H.M. Immigration Officer requests a medical opinion upon an alien. At the airport this duty is performed by the Senior Medical Officer (Port).

(4) Accordance for Medical Inspection and Examination.

When convenient, inspection and/or examination is carried out on board ship, by arrangement with the master. If this is not possible or if a detailed examination is required adequate accommodation is available in the medical inspection room of the Port Health Office.

SECTION XVI

Miscellaneous.

Arrangements for the Burial on Shore of Persons who have Died on Board Ship from Infectious Disease

The Council of the City and County of Bristol is also the Port Health Authority for the district. The ambulance and mortuary facilities of the city are therefore available for the conveyance and detention prior to shore burial of persons who have died on board ship from infectious disease.

SECTION XVII

Other Matters

(1) Measures against Rodents on Docks, Quays, etc.

Periodical surveys of dock premises and waste ground have been carried out during the year. Improved methods of stacking bagged foodstuffs, providing easier access to all parts of warehouses, have given a better opportunity to assess the degree of rat activity and to carry out trapping and bait treatment. Where conditions of stowage and measures of rat repression were found to be unsatisfactory the occupiers were notified of their obligations under the Prevention of Damage by Pests Act, and were requested to take appropriate action. Some improvement has since been observed in these premises, where more effective action is now being taken to eliminate harbourages and to exterminate the rats.

The known number of rats destroyed within the dock area during the year by Corporation rodent operators was 552. This total is very much below that of the previous year, when 1,768 were recovered. This difference is considerable, and is due partly to an appreciable reduction in the number of rats in most of the mills, warehouses and transit sheds as a result of continuous treatment in previous years; and to the fact that for the last eight months of the year poison bait methods only were used. When this treatment is applied only a small percentage of the total rats destroyed is ever recovered. "Sorex", the substance causing fatal haemorrhages in rats was again used as a bait with very good results.

<i>Species, etc.</i>	<i>Destroyed by</i>		<i>Total</i>
	<i>Trapping Jan.—Apr.</i>	<i>Poisoning May—Dec.</i>	
Black ...	90	85	175
Brown ...	247	130	377
Total ...	337	215	552
Examined ...	96	—	96
Mice ...	39	34	73

The high efficiency of this material may well mean that in due course it will altogether replace the other commonly used poison baits such as zinc phosphide and arsenic.

(2) Dock Sanitation.

(a). *Factories and Workplaces.*

All premises of this type within the dock area and at the Chittening Estate have been inspected periodically during the year. It was found that the requirements of the Factories Act, which apply to suitable and sufficient sanitary accommodation, etc., were satisfactorily fulfilled. In three of the factories new accommodation of this type was constructed, and improved washing facilities were installed.

(b). *Canteens.*

With the exception of a few comparatively small firms, canteen facilities are now provided for employees by all large mills and factories at Avonmouth Docks. These, together with the three canteens available for dock employees in general, and those at the City and Portishead docks, have been visited at regular intervals. No formal action was necessary. Few nuisances and structural defects were discovered, and it may be reported that the standard of cleanliness, so very necessary in these establishments, is well maintained.

(c). *Public Conveniences.*

Modern type conveniences available for the officers of ships in the Royal Edward Dry-dock have been completed, and were brought into use early in the year. The repair and renovation of the existing sanitary accommodation for native crews of vessels in dry dock has not yet started. From enquiries made, it is the intention of the Port Authority to put this work in hand in the near future. At the north end of 'N' shed, new public conveniences with improved layout and fittings, providing greater privacy, are nearing completion. Accessible and adequate accommodation of this type will now be available for men working in this section of the dock.

Number of routine visits to:

<i>Premises in Dock Area</i>	<i>Dock Sanitation</i>	<i>Public Conveniences</i>	<i>Tip</i>	<i>Salvage Dumps</i>
760	289	1,003	29	814

(d). *Refuse Collection.*

As detailed in the reports for previous years, the routine collection of ship refuse from concrete bays on the quayside has continued. This efficient system of removal, operated by the Transport and Cleansing Department, has greatly helped in keeping the dock "ship-shape". No complaints regarding either refuse disposal or fly infestation were received. A total of 7,000 tons of general refuse and 685 tons of banana waste was dealt with during the year. In addition, approximately 310 tons of pig food was collected from premises and ships in the dock.

(3) **Food Inspection.**

The handling of imported foodstuffs, particularly frozen meat and dried fruit cargoes, has received continuous attention at the port both during and after discharge. Greater care has been taken in the handling of frozen meat, and only on a very few occasions was it necessary to detain the meat (usually mutton and lamb carcasses) because of dirt contamination. Unfortunately, the same cannot be said for some of the dried fruit consignments.

Wooden fruit cases are of frail and insecure construction and will not withstand rough treatment. Careful handling is therefore necessary when the cargo is being discharged from ship to barges for fumigation, and from barges to road transport vehicles. Complaints regarding the discovery of nails, wood splinters, etc., in this commodity when sold retail are frequent, and to avoid them consideration should be given to: (a) provision of stronger wooden boxes, or the use of strong cardboard cartons to the exclusion of wood and (b) greater care in the handling of this type of cargo.

During November the first shipment of chilled meat from Eire was discharged at the City docks, and by the end of the year there were three small vessels in this trade bringing in, on the average, three to four cargoes every week. The meat, comprising chilled beef quarters, lambs, pigs, and offal, is transferred from the ship's hold direct to railway insulated meat vans, and dispatched with a minimum of delay to Smithfield Market. In addition to the routine examination of the shipments, the Inspectors have paid particular attention to the methods of handling the meat in an effort to ensure that adequate precautions are taken to protect it from dirt contamination.

A considerable variety of imported foodstuffs intended for human consumption has again been subjected to inspection and analytical examination during the period under review. As a result, the undermentioned consignments of food were detained at the port under the provisions of the Imported Food Regulations.

(a). *Consignment of Canned Sausages from South Africa.*

Upon examining this consignment a high percentage of blown tins was found. Since the bacteriological report on the contents of apparently sound tins was unsatisfactory the Importers were requested to conform to the provisions of the Regulations. They elected to re-export the consignment to the country of origin.

(b). *Two shipments comprising 866 boxes and 1,000 boxes respectively (amounting to 50 tons approximately) of Dry Pack Fruit Mince-meat from Australia.*

The mincemeat was declared to contain 44 per cent. currants and sultanas, 51½ per cent sugar and 4½ per cent. refined beef suet fat. The latter ingredient, which was mixed thoroughly with the fruit and sugar, had a distinct tallowy taste and smell. Various tests were carried out but the

unpalatable taste could not be removed. In due course the consignments were released to London for effective treatment and processing whereby the fat and tallow taste would be removed, the sugar and dried fruit being used for the manufacture of sweet pickle.

(c). *A consignment of 1,207 boxes Dry Pack Fruit Mincemeat from Australia (approximately 32 tons).*

This had been exposed to rain and slight mould growth and fermentation was detected in the wet stained cases. The whole consignment was reconditioned under supervision prior to release for manufacturing purposes.

(d). *200 cartons (48 – 1 lb. tins) Dutch canned Chicken Soup.*

A considerable number of blown tins was discovered during a full examination of the consignment. Bacteriological reports on apparently sound tins were unsatisfactory. The whole consignment was re-exported to the country of origin.

(e). *100 cases (96 – 7 oz. tins) Dutch Canned Luncheon Meat.*

Twenty-one per cent of the tins in this shipment were in a blown condition. The importers elected to surrender the complete shipment and this was destroyed under the supervision of the Inspector.

Bananas.

As in past years, the Ministry of Food and Messrs. Elders & Fyffes, Ltd., have very kindly co-operated in allowing fruit to be distributed to local hospitals and in this way more than 15,300 lbs. of bananas—over ripe for trade distribution—were put to good use.

Food Inspection.

Meats (Condemned)

Description	Decomposition and Mould			Brine Stain			Contamination and Taint			Total		
	T.	C.	Q. lb.	T.	C.	Q. lb.	T.	C.	Q. lb.	T.	C.	Q. lb.
Beef	2	4	0 18			—			—	2	4	0 18
Lamb			3 20	11	2	22	2	1	23		15	0 9
Mutton		1	3 22			—			—		1	3 22
Pork		1	3 27			—			—		1	3 27
Total	2	9	0 3	11	2	22	2	1	23	3	3	0 20

Canned Goods (Condemned)

Description	Reason for Condemnation	Quantity (tins)	T. C. Q. lbs.
Fruits	Blown, burst, rust	6,211	3 5 0 22
Meats	holed, pierced and crushed.	331	4 1 8
Fish	Crushed and burst	105	1 3
Jams	" "	37	2 5
Milk	" "	604	4 2 26
Mincemeat	" "	34	1 2
Pickles	" "	5	3
Tomatoes	" "	73	1 2 7
Vegetables	" "	558	10 0 6
Total	—	7,958	4 6 3 26

Miscellaneous Foods (Condemned)

Description	Reason for Condemnation	T. C. Q. lbs.
Barley	Grossly contaminated and perished	2 7 0 0
Biscuits	" " "	2 22
Butter	Rancid and mouldy	2 13
Cereal, Breakfast	Perished, mouldy and insect infested	18 0 26
Coconut, Desiccated	Mould contamination	3 1 6
Fat, Sweetened	Grossly contaminated	1 2 0
Flour	Grossly contaminated and mouldy	1 6 1 2
Fruit, Dried	Grossly contaminated, mouldy insect infested perished	2 3 0 23
Jellies	Grossly contaminated	11
Maize	Grossly contaminated, heated	6 10 0 0
Mincemeat, Dry Pack Fruit	Mould and dirt contaminated	17 0 13
Oats	Grossly contaminated, perished	2 0 0 0
Rice	Grossly contaminated, and insect infested	12 1 10
Tea	Grossly contaminated and mouldy	19 2 20
Vegetables, Dried	Perished, mouldy and insect infested	3 1 26
Vegetables, Fresh	Decomposing and mouldy	14 2 1 20
Wheat	Grossly contaminated and perished	41 10 0 0
Total	—	73 15 3 24

Food Inspection.

Particulars of Foods Detained for Re-Exportation or Reconditioning at Local or other Food Depots

Description of Food	Reason for Detention	Tons (Approx.)
Beef Quarters	Mould and decomposition	14
Coconut, Desiccated	Wet damage	3
Flour	Wet damage and mould	166
Fruit, Dried	Wet damage and mould	12
Lamb, Carcases	Brine stain and dirt contaminated	30
Milk, Condensed	Rusty condition	14
Mincemeat, Dry Pack		155
Fruit	Rancidity of fat	
Sausages, Cnd.	Re-exported	9
Sheep, Carcases	Brine stained and dirt contaminated	4
Tea	Wet damage and mould	11
Total	—	418

Drinking Water Samples from Ships

Name of Vessel	Result
s.s. Cato	Satisfactory
s.s. Clan Sinclair	„
s.s. Portway	„
„	Unsatisfactory
s.s. Steep Holm	Undesirable bacterial activity
„	Evidence of improvement

Food Inspection.

Samples of Imported Foodstuffs taken 1952 and sent
for examination by the Analyst or Bacteriologist

No. of Samples	Description of Commodity	Country of Origin	Exam. for*	Result
1	Apricots	S. Africa	M	Satisfactory
1	Asparagus	Australia	M	"
1	Baked Beans in Tomato Sauce.	S. Africa	B	"
4	Baked Beans in Tomato Sauce.	"	M	Evidence of attack
2	Beans, Stringless Green	S. Africa	M-B	Satisfactory
1	Blackcurrants in Syrup	Australia	M	"
1	Butter, Peanut ...	S. Africa	S	"
1	Butterbeans in Natural Juice.	S. Africa	M	"
1	Coconut, Coloured Desiccated.	Ceylon	S	"
1	Cordial, Fruit	U.K.	P-S	{ Exported from this country and returned —found satisfactory
1	Cordial, Lime Juice ...	U.K.	P-S	
2	Currants	Australia	S	Satisfactory
2	Fat, Sweet	Eire	S	"
2	Fat, Sweetened ...	Ceylon	S	"
1	Fruits for Salad ...	Jamaica	M	"
1	Grapes, White	S. Africa	M	"
2	Hams	Swiss	M-B	"
1	Ham, Cooked	N.Z.	B	"
1	Jam, Blackcurrant ...	Australia	M	"
1	Jelly, Piping	Eire	S	"
1	Juice, Orange	Jamaica	M	"
3	Juice, Pineapple ...	S. Africa	M-B	Tin content high
1	Juice, Pineapple ...	S. Africa	M	Satisfactory
3	Juice, Tomato	S. Africa	M	Evidence of attack
1	Lawtonberries in Syrup	Australia	M	Satisfactory
6	Lobster, Rock	S. Africa	M-S	"
1	Loganberries in Syrup	Australia	M	"
1	Mango Cubes in Syrup	Jamaica	M	"
3	Meat, Luncheon ...	France	M-B	"
3	Meat, Luncheon ...	Holland	M-B	Unsatisfactory— Re-exported.
1	Meat, Luncheon ...	Denmark	B	Unfit
3	Meat, Pork Luncheon	Denmark	M-B	Satisfactory
2	Minced Beef Loaf ...	Australia	M-B	"
12	Mincemeat, Dry Pack Fruit.	Australia	S	Unsatisfactory—rancidity of fat.
4	Mincemeat, Dry Pack Fruit.	Australia	S	Satisfactory for reconditioning.
9	Oranges, Mandarin ...	Japan	M	Satisfactory
2	Peaches	Eire	M-S	Foreign matter present—harmless.
2	Peaches	Eire	M-S	Signs of incipient and advanced fermentation.
3	Peaches, Yellow Cling ...	Australia	M-S	Satisfactory
1	Peaches, Yellow Cling ...	S. Africa	M	"
4	Pears, Bartlett	S. Africa	M-S	"

*Key Examined for :

B Bacterial contam.
M Metallic contam.
P Preservatives
S Soundness or purity

Samples of Imported Foodstuffs—cont'd.

No. of Samples	Description of Commodity	Country of Origin	Exam. for*	Result
2	Peas, Garden	Belgium	M-S	Satisfactory
2	Peas, Green Garden ...	S. Africa	M-S	"
2	Peas, Processed	Holland	M-S	"
8	Pilchards in Tomato Sauce	S. Africa	B-M-S	"
1	Pineapple, Pieces	S. Africa	M	"
1	Pineapple, Sliced	British Malaya	M	"
4	Plums, Victoria	Holland	M-S	Satisfactory for manufacturing purposes.
1	Puree, Cond. Tomato ...	S. Africa	M	Signs of attack
2	Puree, Cond. Tomato ...	Italy	M-S	Satisfactory
2	Rabbit, Bone in	Australia	M-S	"
1	Raspberry in Syrup ...	Australia	M	"
6	Sausages, Cambridge Pork	S. Africa	P-S	Bacterial action—re-exported.
2	Sausages, Pork	Australia	P-S	Satisfactory
1	Soup, Asparagus	Australia	S	"
2	Soup, Beef Noodle	Eire	S	"
10	Soup, Chicken	Holland	M-S	Unsatisfactory
1	Squash, Orange	U.K.	P-S	Exported and returned—found satisfactory.
11	Steak, Stewed	Australia	P-S	Satisfactory
1	Strawberries	Australia	M	"
2	Sultanas	Australia	S	Slight sea-water contam.
3	Syrup	Jamaica	P	Satisfactory
1	Tomatoes	Holland	M	"
8	Tomatoes	Italy	M	Signs of attack
25	Tomatoes	Italy	M-S	Satisfactory
6	Tomatoes	Italy	M-S	Copper in excess
2	Tomatoes	Jamaica	M-S	Satisfactory
1	Youngberries	S. Africa	M	"

*Key Examined for :

B Bacterial contam.
M Metallic contam.
P Preservatives
S Soundness or purity

SECTION E

SPECIAL REPORTS

	SECTION E
	<i>Page</i>
1. The Preventive Medicine Laboratories - <i>H. R. Cayton</i>	2-7
2. B.C.G. Vaccination - - - - - <i>A. T. M. Roberts</i>	7-9
3. Administration - - - - - <i>P. J. Room</i>	9-10
4. Cancer Education - - - - - <i>D. M. Evans</i>	11-18
5. Blindness Prevention - - - - - <i>J. Wallis</i>	18
6. Constitution of the Health Committee, 1952	19
7. Public Health Staff - - - - -	19-20

I. THE PREVENTIVE MEDICINE LABORATORIES, 1952

by H. R. Cayton (*Deputy Director of Preventive Medicine Laboratories*)

Sir John Charles, Chief Medical Officer, Ministry of Health, in his annual report for 1951, "The State of the Public Health", expresses the view "we have arrived at a time when the citizen himself must actively participate in the campaign for better health if further substantial progress is to be made."

Sir John points out that most of the improvement in public health over the past century has been achieved without very much active exertion on the part of the individual citizen. A host of workers have unobtrusively worked this miracle on his behalf. We have now emerged from the era of sanitary engineering and are entering that in which an active and enlightened self interest on the part of the individual must contribute to the common good if further substantial progress is to be made.

Extensive outbreaks of infectious disease provided the public health bacteriologist with statistics for his annual report and material for the practice of his special interests. The success of sanitary science and the triumphs of prophylactic immunisation have transformed the daily routine of public health laboratories. A generation of laboratory workers is arising which has never isolated the diphtheria bacillus, or experienced the melancholy duty of reporting five, ten, or more cases a day.

"Diphtheria bacilli not found" has no news value but the monotonous repetition of the report is the best measure of our success. The price of security is eternal vigilance. Prevention, if less spectacular than "cure" is infinitely more satisfactory and incidentally vastly cheaper.

Diagnostic Services

The diagnostic service is limited to infectious disease in its widest sense. More use could be made of it by the practitioners, and every effort is being made to give them a speedy service, consistent with accurate and full investigation. There should be no "routine specimens". If clinical information is provided each can be dealt with in a way most likely to provide useful information. Consultation with the practitioners concerned brings vitality to the work of the laboratory with benefit to both parties. A simple and effective technique for the bacteriological diagnosis of Whooping Cough is now available.

The city was notably free from major epidemics during 1952, but the introduction of a "carrier" of paratyphoid fever into the Maternity Unit at Southmead Hospital led to a small outbreak which might have had serious consequences. In this connection one may venture to suggest that collaboration with the hospital services could be improved and extended. Our contact with Ham Green Hospital has always been a close one; by direct and frequent contact with the physicians we hope to extend epidemiological information and ensure, if possible, a comprehensive service.

Sanitary Specimens

The inspectors continued to submit materials for bacteriological investigation and no major changes are apparent. The "designation" of Bristol County as an area in which no milk, other than pasteurised, "tuberculin tested" or "accredited" may be sold will reduce the need for the

regular sampling of milks for the presence of *Mycobact. tuberculosis*. The presence of *brucella abortus* in a notable proportion of samples emphasises the desirability of the heat treatment of all milk.

A further improvement in the cleanliness of milk bottles is necessary if one of the benefits of pasteurisation is to be appreciated by the consumer. Approximately one third of the bottles submitted for examination were unsatisfactory as judged by our quite lenient standard. This is no better than the position reported by Professor Cooper (1939). In this matter also the co-operation of the public would appreciably assist the dairy industry.

Venereal Diseases

A substantial proportion of our resources is devoted to the diagnosis of the venereal diseases. The improvements in therapy have transformed the treatment of these conditions and the resultant decline in the number of specimens examined has been marked. More time is therefore available for the more elaborate and time-consuming tests, and for investigations into the anomalous results that infrequently but constantly recur.

Veterinary Bacteriology

The laboratory has continued to maintain a close association with the meat inspectors and veterinarians in the area. Many animals contract and suffer from diseases which may be transmissible to man. In a recent instance the laboratory was able to isolate *B. anthracis* from animal feeding stuffs. The laboratory was therefore in a position to inform the Medical Officer of the potential risk to those milling and distributing the product, and to contribute its quota of information to those engaged in the arduous task of tracing the origin of the contamination.

Miscellaneous Services

The laboratory distributes the various prophylactics for the control of communicable disease. In spite of the deplorably low vaccination rate, 21,724 tubes of vaccine lymph were distributed to medical practitioners and other medical agencies. In addition to the commoner prophylactic agents a stock of gamma globulin is maintained for the prevention or modification of measles in suitable cases. These activities provide further opportunities for discussion with the practitioners and so assist the spread of the newer knowledge regarding their use.

The Bristol laboratory remains an integral part of the University Department of Preventive Medicine, but as an Associated Laboratory of the Public Health Laboratory Service we enjoy the support and assistance of that service. An area laboratory can never hope to match in resources the national organisation and we gratefully acknowledge the help and assistance they have provided.

Research

Integration with the University, and our direct connection with the Health Department of the City through Professor Parry afford opportunities for research which should develop increasingly as prospects under consideration mature.

PREVENTIVE MEDICINE DEPARTMENT

Staff 1952

- R. H. Parry, M.D., F.R.C.P., D.P.H., Q.H.P., *Professor of Preventive Medicine.*
 R. C. Wofinden, M.D., B.S., D.P.A., D.P.H., *Lecturer in Public Health.*
 S. W. Hinds, M.D., M.R.C.P., M.R.C.S., D.T.M. & H., *Lecturer in Social and Preventive Medicine.*
 G. Herdan, M.Sc., Ph.D., LL.D., *Lecturer in Statistics.*

Preventive Medicine Laboratories

- K. E. Cooper, B.Sc., Ph.D., M.R.C.S., L.R.C.P., *Professor of Bacteriology and Director of Laboratory.*
 H. R. Cayton, M.B., Ch.B., *Lecturer in Bacteriology and Deputy Director of Laboratory.*
 Dorothy Woodman, M.Sc., M.D., B.S., M.R.C.S., L.R.C.P., *Lecturer in Clinical Pathology.*
 C. N. Iland, M.B., Ch.B., D.C.P., Ph.D., *Lecturer in Bacteriology.*
 Anna Mayr-Harting, M.D., Ph.D., *Lecturer in Bacteriology and Bacteriologist.*
 A. H. Linton, M.Sc., *Lecturer in Bacteriology (Veterinary).*
 D. B. Peacock, M.B., Ch.B., *Research Assistant and Serologist.*
 L. Michaels, M.B., B.S., *Demonstrator in Bacteriology.*
 Patricia Wells, B.Sc., *Recognised Teacher and Assistant Bacteriologist.*
 Beryl Glockling, B.Sc., *Recognised Teacher and Assistant Bacteriologist.*
 Helen A. Dicker, B.Sc., *Recognised Teacher and Assistant Bacteriologist.*

EXAMINATIONS MADE DURING 1952

Local Authority Examinations (Public Health)

Swabs (Ear, Nose, Throat)

Diphtheriae cultures	...	...	...	...	...	2,666
Other organisms including streptococcus pyogenes	...	...	...	...	...	1,972
Films for Vincent's Angina	...	...	...	...	...	762
Whooping Cough diagnosis	...	...	...	...	...	24
Lancefield grouping (of Streptococci)	...	...	...	...	...	130

Swabs (Others)

Films only	...	...	...	...	...	17
Cultural investigations	...	...	...	...	...	320
Tubercle films	...	...	...	...	...	12
cultures	...	...	...	...	...	8
Anaerobic cultures	...	...	...	...	...	3

Sputum

Tubercle films	...	...	...	...	...	2,403
cultures	...	...	...	...	...	698
concentration	...	...	...	...	...	718

Others film and cultures	...	...	...	...	...	104
"Yeasts"	...	...	...	...	...	1
Sensitivity tests	...	...	...	...	...	57

Water Analysis

Complete bacteriological examination	...	...	...	650
Special	...	...	...	2

Milk and Dairies

Biological Tests (Local authorities for Tubercle)	...	...	756
(Ministry of Agriculture Tubercle and Brucella)	...	...	106
Phosphatase Tests	...	...	1,547
Designated milks, Tuberculin Tested	...	...	548
Pasteurised...	...	...	1,403
Non-designated milks	...	...	12
Sterilised milks	...	...	60
"Cream line" tests	...	...	691
Plant Tests	...	...	78
Bottle and churn rinses	...	...	233
Ice cream, count, coli and Methylene Blue	...	...	802
Ice cream wrappers	...	...	2
Synthetic creams	...	...	1
Ice cream powder	...	...	2
Egg yolk powder	...	...	1
Ice lollies	...	...	24
Skimmed milk powder	...	...	1

Urines

Miscellaneous cultures	...	...	...	127
------------------------	-----	-----	-----	-----

Faeces

Direct microscopy, ova and protozoa...	...	...	...	216
Intestinal pathogens dysentery	...	...	4,731	
Enteric Fever and Salmonella	...	...	1,767	
				6,498
Tubercle bacilli	...	...	...	1
Staphylococcus	...	...	...	1
Sewage "Moore's swabs"	...	...	...	3

Haematology

Films for Malaria	...	...	...	2
Blood culture	...	...	...	2
Serum agglutinins, Widal Test and Vi agglutinins	...	...	...	19
Leptospira agglutination	...	...	...	3
Paul-Bunnell Test	...	...	...	3
Animal inoculation, Leptospirosis	...	...	...	1

Rats

Post-mortem examination and cultures, Plague	...	...	311
--	-----	-----	-----

FOOD AND FOOD HYGIENE**Processed Foods**

Full examination including film and aerobic and anaerobic cultures	130
Milks for haemolytic streptococci, etc.	29
Shellfish (batches)	126
Tank fluid	1
Foods, suspected food poisoning	38
Carcass meat, for parasites	185
for histology	43
Miscellaneous Investigations	53

OTHER EXAMINATIONS (Clinical, pathological, etc.)**Urine and Urinary Deposits**

Chemical tests	8
Microscopy and culture	269
Films for myc. tuberculosis	17
Cultures for myc. tuberculosis	154
Biological tests for myc. tuberculosis	50
Sensitivity tests for myc. tuberculosis	2
Friedman tests	498
Quantitative Friedman test	1

Parasitology

Faeces	105
---------------	-----

Pus and Other Fluids

Films and culture	142
Cultures for myc. tuberculosis	19
Biological tests for myc. tuberculosis	68
Films only for myc. tuberculosis	23
Mycological cultures, etc.	4
Anaerobic cultures	6
Sensitivity tests	3

C.S. Fluid

Cultures for mycobac. tuberculosis	26
Biological tests	21

Miscellaneous

Cultures for identification	4
Biological tests (pyrogens)	2

Animal Feeding Stuffs

(Anthrax) samples (cultures and animal tests)	30
--	----

Ringworm

Cases	2
--------------	---

Sputum

Films	1
Culture	1

Sensitivity test	1
Vaccine autogenous	1
Biological test (Tubercle)	7

Serology

Paul Bunnel test	2
Widal test	1
Culture	1

Venereal Diseases

Blood for Wassermann reaction	7,948
Kahn reaction	7,912
Quantitative reaction	1,448
C.S. fluids for Wassermann	506
Cells	150
Globulin	149
Protein	2
Lange	159
Films for gonococci	5,651
Cultures for gonococci	5,290
Urine for gonococci	2

TOTAL 55,292

2. B.C.G. VACCINATION

by Dr. A. T. M. Roberts (*Consultant Chest Physician*)

Since B.C.G. vaccination of contacts started in Bristol in May 1952, 641 children have so far been tested and 482 have been vaccinated. The incidence of positive reactors fell off rapidly from October onwards (see table). This was probably because the first few months were devoted mainly to contacts of the more chronic and infectious cases, many of whom had already received their primary infections. We are now examining contacts soon after the discovery of the primary case and finding a much higher percentage of negative reactors.

The health visitors are offering B.C.G. vaccination to all contacts under 20 years of age and we are aiming at vaccinating the children while the primary case is in hospital. The B.C.G. secretary is informed of all admissions and is responsible for checking that vaccination is offered. Where the primary case is believed to be non-infectious no segregation has been arranged, but in a few instances, probably not more than 20 so far, we have proceeded with vaccination while there was still contact with an infectious case in the home.

The conversion rate has been very satisfactory (95 per cent) and we have so far seen no complications from the vaccination and have had no complaints from parents or their family doctors.

All children who are already tuberculin positive when first tested are referred, within the next two weeks, to a special clinic for X-ray and clinical examination, and both vaccinated and unvaccinated children are re-examined and retested at six-monthly intervals. This seems to be a very satisfactory way of linking the B.C.G. and Contact schemes as by it all child contacts would be kept under the same observation scheme and vaccination and revaccination given when necessary.

At school leaving age all contacts would thus have received a natural or artificial primary tuberculous infection and would then be handed on to the adult contact scheme for further observation.

If B.C.G. vaccination confers some protection against progressive tuberculous infection, and we must believe that it does, it is logical that it should be offered in time to all children. This would need a larger organisation than we have at present, but it is hoped to make a start in 1953 by offering tuberculin tests and vaccination where necessary to all school leavers. Next to the household contacts of known cases, it is probable that the group of adolescents who leave school and go into industry without the protection of a healed primary tuberculous infection are the most fruitful source of progressive disease in young adults.

Table I

<i>Vaccination date</i>	<i>Number seen</i>	<i>Number of positives</i>	<i>Number Negative and vaccinated</i>	<i>Number successfully converted</i>	<i>To be revaccinated</i>
23.5.52	57	30	27	27	—
20.6.52	58	21	37	37	—
18.7.52	70	20	50	49	1
12.8.52	78	25	53	52	1
10.10.52	105	36	69	65	4
31.10.52	102	13	89	87	2
14.11.52	89	4	85	80	5
12.12.52	82	10	72	63	9
TOTAL	641	159	482	460	22
Southmead Hospital	130	—	130	130	—

Percentage successfully converted : 95.43%

B.C.G. Vaccination

Jelly Patch Results in Separate Age Groups, May–December 1952

<i>Age</i>	<i>Positive</i>	<i>Negative and Vaccinated</i>
Under 1 year	—	42 (100%)
1	4	32 (89%)
2	7	55 (89%)
3	7	53 (88%)
4	11	52 (83%)
5	7	30 (81%)
6	10	34 (77%)
7	15	28 (65%)
8	7	31 (82%)
9	15	12 (44%)
10	23	24 (51%)
11	9	10 (53%)
12	13	11 (46%)
13	9	7 (44%)
14	8	9 (53%)
15	5	6 (55%)
16	6	2
17	1	2
18	1	1
19	1	3
20	1	1

B.C.G. Vaccination 1952**Southmead Hospital**

Number seen and vaccinated : 130. Number successfully converted : 130.

	<i>Age</i>		<i>Number</i>
Under	1	...	116
	1+	...	5
	2+	...	2
	3+	...	4
	4+	...	1
	10+	...	1
	13+	...	1
			130

3. ADMINISTRATION

by P. J. Room (*Chief Administrative Assistant*)

The year 1952 has proved to be one full of momentous happenings in the life of the Health Department.

Ambulance Service

On 1st April the Ambulance Service was transferred from the control of the Fire Brigade Committee to that of the Health Committee. Arrangements were made beforehand for the establishment of a control room at the Central Health Clinic. At zero hour, the transfer of telephone lines was made and so smoothly did the work proceed that the only knowledge the public had that such a change had been made was the announcement in the press of the accomplished fact. The whole of the staff co-operated so effectively that despite the changeover and the necessity for newly appointed staff to become familiar with the work, there were more cases transported that month than during any previous month since the establishment of the City Ambulance Service.

The number of ambulance cases has continued to rise month by month. The City Council has gone a long way to meet the difficulties caused by the increasing demands, by agreeing, after a short trial period, to the equipment of a portion of the Ambulance fleet with radio-telephony. By this means greater mobility and efficiency in the use of existing vehicles will be achieved and it is hoped that eventually the whole of the fleet will be so equipped.

Clerical staff were transferred with the service and absorbed into the appropriate offices of the Administrative Section which has become responsible for all the detailed work in connection with payment of wages, keeping of records, rendering of accounts, payment of monies due, etc., in connection with this large additional arm of the department.

The Health Committee originally appointed an Ambulance Sub-Committee to supervise the arrangements for the transfer of the service and to assume control. At the commencement of the municipal year in May however, the matter was reconsidered and the duties were added to those of the

Health Centres and Co-ordinating Sub-Committee which was re-named the Health Centres and Ambulance Sub-Committee.

William Budd Health Centre

Another epoch-making event during the year was the opening of the Health Centre at Leinster Avenue, Knowle. This was the first centre specifically erected by a local health authority for the purpose, under the provisions of the National Health Service Act, 1946.

The opening by the Minister of Health, the Rt. Hon. Ian McLeod, took place on the 16th September and arrangements for this function were made within the section. The necessary staff—secretarial, clerical, cleaning, portering, and so on—were appointed and added to the establishment under administrative control.

In view of the Council's duties under the Act, to erect, staff and maintain health centres, the ultimate responsibility for these purposes rests with the Health Committee, who carry out this service through their appropriate Sub-Committees. A Joint Advisory Committee has been formed of representatives of the Local Health Authority, Local Executive Council and Local Medical Committee, which makes recommendations to the appointing bodies. A further committee consisting of representatives of the Joint Advisory Committee and the staff working at the centre, form a House Committee who deal with the day-to-day problems arising out of conducting a centre of this nature.

Lawrence Weston Clinic

The first new clinic building erected since the war was also completed and opened at Lawrence Weston to meet the needs of an entirely new housing estate.

B.C.G.

The Council approved new proposals in connection with the prevention of illness, etc., which will enable the Health Committee to attack tuberculosis with an emphasis on "prevention". Preliminary steps have been taken during the year in the appointment of Welfare Officers and clerical staff and a commencement made in the arrangement of sessions for the B.C.G. inoculation of children. Unforeseen delays have occurred in the appointment of an epidemiologist, but it is hoped that early in the new year, the complete scheme will be in operation.

Problem Families

During the year, negotiations have taken place with Family Service Unit to establish a unit in Bristol, to deal with problem families in their homes. It is visualised that this project will be in the nature of an experiment which will be expanded if the committee's hopes of success are realised. The unit will be staffed by Family Service Units, but every assistance necessary to further the work will be given from the administrative section of the department. The scheme will operate in the new financial year.

My first full year of office has been marked by the loyal and willing co-operation of all sections of the department for which I am glad to have the opportunity to express my appreciation.

4. CANCER EDUCATION

by D. M. Evans, B.A. (*Personal Assistant to the Medical Officer of Health*)

The subject of cancer education is a controversial one but there is a growing weight of argument in favour of some degree of public education. It is over the question of the *degree* of cancer education that points of divergence arise. Should it be (a) *General*, covering all forms of cancer and aimed at the general public by all propaganda and educational media—as in Canada and U.S.A.; (b) *Specific and selective* and confined to certain forms of cancer with the best prognosis (e.g., cancer of the breast); or (c) *General and specific*—a broad campaign related to all forms of cancer bringing special emphasis to bear on; the need for early diagnosis and to obviate delay: the greater survival rate which follows and illustrations, as necessary, from those presenting the most favourable prognosis.

Writing in the *Journal of the Royal Institute of Public Health and Hygiene* in November 1939 on "The Cancer Act, 1939", the Medical Officer of Health said:

"A person suffering from cancer may appear before a doctor only because something abnormal has been discovered in the appearance or functioning of part of the body. Sometimes the best that even the practitioner can do is to suspect cancer if the abnormality is situated in some inaccessible site. Nor is cancer the only disease that makes itself known in this way. It is not possible, therefore, to conduct public education campaigns against cancer alone, except from the preventive aspect when people are exposed to special risks. Educational campaigns against cancer must form part of more general aims against ill health to warn all persons that they must not ignore abnormalities in function or appearance of any part of their bodies."

The passing of the National Health Service Act 1946 and other developments had changed the position somewhat when the department's policy was reconsidered in 1951 and plans drawn up, but broadly speaking, there was little divergence from the view expressed above. Opinions favoured a specific and selective scheme restricted to the cancers in accessible sites and directed to special audiences. No use of mass propaganda media was thought to be opportune. The scheme adopted was the one set out below which is a reproduction of the pamphlet *Cancer in Bristol*. The figures shown are for 1950 but the position is substantially the same since that date. Some of the steps envisaged have since been taken and the full co-operation of all other interested bodies has been obtained for the interim scheme. Similarly the leaflet for distribution through selected channels—women's organisations and by the health visitors, is reproduced (Appendix "A").

It is too early to report on the success or other wise of this scheme which is regarded as first steps over non-controversial ground and towards agreed ends, but a fuller account of the scheme at work will be given in next year's report. The operation of the scheme is being co-ordinated by the Personal Assistant to the Medical Officer of Health.

CANCER IN BRISTOL

(A short review of the present position with regard to cancer in Bristol)

I. In Step with Progress

Medical and scientific progress in recent years has been rapid and dynamic. The dramatic achievements of penicillin and antibiotics have taken the limelight and overshadowed all other progress. The result is that the tremendous advances in other directions have not received the recognition they deserve. New aids to diagnosis have made their appearance. Developments with regard to the use of X-rays and laboratory technique have made early diagnosis possible for diseases where hitherto it had been difficult or impossible. Of necessity the hospital has become the centre of diagnosis for all conditions requiring the use of these aids because of the heavy cost of equipment and the complicated techniques involved in their use. Such a disease as cancer can now be diagnosed early with their aid. It is not proposed to attempt to educate the public with regard to the early symptoms of the internal cancers, but it is felt that much can and should be done to educate the public with regard to *accessible* cancers.

1. Early Diagnosis of Accessible Cancers

There can be little doubt, from evidence accumulated from many sources, that a high percentage (probably 20 per cent or one in five) of those who now die of cancer could be saved ON THE BASIS OF PRESENT KNOWLEDGE of diagnosis and treatment *provided* that the malady is recognised and taken in hand at an early stage.

Certain cancers are more amenable to treatment and more accessible for early diagnosis than others, but early diagnosis is regarded as essential in all cases. These cancers with a more favourable prognosis are cancer of the breast, uterus, lip and mouth, and skin.

The S.W. Regional Cancer Records Bureau has collected data from the records of all the main hospitals for four or five years past and a careful follow-up has been maintained.

Two things emerge from the examination of these records :

- (a) The fact that there is a significant time lag between the appearance of the first symptoms and diagnosis and treatment;
- (b) The fact that a high proportion of those treated for cancers of breast, uterus, lip and mouth in the early stages have been alive and well after five years from treatment.

2. Time Lag Between First Symptoms and Treatment

CANCER—CERTAIN ACCESSIBLE SITES

Delay period between first symptoms and treatment

Site	3 months or under	3-12 months	Over 1 year	Over 2 years	Total
Uterus	34%	28%	14%	24%	100%
Breast	38%	30%	10%	22%	100%
Lip and mouth ...	24%	28%	20%	28%	100%

This table reveals that in a large percentage of cases there was a delay of over one and even two years between the appearance of the first symptoms and treatment. Why did they not come up sooner ?

Various answers may be given to this question. One is feminine modesty: cares of a family: that the lump, being painless, could not be serious or that the bleeding was menopausal: another that if the condition is cancer, it is hopeless.

3. Early Treatment and Prognosis

What are the prospects of recovery as a result of treatment if given at early stages—particularly with regard to those sites singled out for special mention above?

Figures for the S.W. Region show that:

* STAGE I—CASES AFTER FOLLOW-UP

Site	After 3 years † Alive and well	After 4 years Alive and well	After 5 years Alive and well
Breast ...	69.5%	65%	56%
Cervix uteri ...	66.6%	61.5%	41.1%

* Stage I (breast) is defined: "There was a neoplasm confined to the breast without palpable axillary glands and with no widespread skin involvement or fixation to chest wall".

† Alive and well; no recurrence.

Figures for the rest of the country show a similar trend. What can be done to reduce delay in seeking medical advice and in securing early treatment?

II. Outline of Suggested Interim Scheme of Cancer Education

As the body responsible for health education in Bristol, the Public Health Department has prepared an interim scheme for cancer education, which has been approved by the Bristol Health Committee. The Regional Hospital Board has already given its assurance that the Board will "lend its full support to any local health authority which decided to embark on educational work of this kind". The Cancer Advisory Committee has satisfied itself that cancer cases requiring admission to hospital can be given priority, and that there would be no undue delay in this respect.

No large-scale cancer campaign is contemplated at present, but a restricted scheme has been prepared to meet the need for a more informed public opinion on the improved prospects with regard to certain cancers, and to stress the need for early diagnosis. In this way it is hoped that the time lag between the appearance of the first symptoms and diagnosis and treatment would be considerably reduced.

It is appreciated that this would inevitably lead to an increase in the work of general practitioners and hospital out-patient departments. The stages in the implementation of the suggested scheme would be:

- (i) *Co-operation.* Every effort would be made to secure the co-operation of doctors through the Local Medical Committee, and of hospitals through the Regional Hospital Board and Teaching Hospitals.*
- (ii) *General Practitioners*
 - (a) Following the steps shown above, a brief statistical statement on cancer would be included in the monthly bulletin to general practitioners.
 - (b) When, and if, the co-operation of the Local Medical Committee* and of the hospitals is secured, it is proposed to send a synopsis of the pamphlet "Cancer in Bristol" to each general practitioner with a covering letter inviting their co-operation and informing them of the leaflet and letter mentioned below.
- (iii) *Selected Organisations* will be sent a letter by the Medical Officer of Health enclosing copies of a leaflet (drawn up by the Cancer Advisory Committee to the S.W. Regional Hospital Board) for distribution to members of this organisation. In this way it is thought that a more enlightened public opinion will be built up.
- (iv) *Health Department* doctors, midwives, health visitors and district nurses will continue to give advice and guidance, where thought necessary, to secure an early diagnosis or to obviate fear. This is part of the routine work of the department, but further stress will be given to it by distributing some of the information mentioned above and arranging talks to groups of the officers concerned by experts.

Objections to Cancer Education

It is true of course that there are objections to a cancer education scheme and it is well to state the arguments for and against such a scheme. The main objections to cancer education have been summarised :

- (i) that it would depress the spirits of the people by creating a CANCER PHOBIA;
- (ii) that it would cause a rush of patients with nothing the matter with them to the doctors' surgeries at a time when they are overwhelmed with work;
- (iii) that the early signs are so varied and doubtful that education is impossible.

The Case for Cancer Education

If the information given follows sensible lines, there is a good answer to all these objections. The cancer phobia already exists; if women are assured, as they can be assured, that odd pains in the breast without a lump do not mean cancer, and that two-thirds of cases treated early will be alive and well three to five years later and many of them very much longer, their fears will be replaced by astonishment and hope.

To the overworked doctor we would say : which would you prefer—to send ten women away happy by telling them they have not got cancer, or to have to attend a hopeless case daily for six months to give morphia because

* Since this pamphlet was prepared the co-operation of these bodies has been readily given and full support promised.

she showed you her breast in July when she ought to have come in January ? To meet the third objection, it would be well in the first place to concentrate attention on three well-defined clinical pictures, the painless lump in the breast (which may not be cancer after all), the irregular uterine bleeding in a woman past forty, and a sore of the lip, tongue or mouth which is not healed within a fortnight.²

III. The Size of the Problem

The emphasis in this pamphlet has been placed on practical issues. Members of the medical profession are only too well aware of the difficulties that beset the problem and the doubtful prognosis of the majority of cancers. It is, however, essential that appropriate steps are taken to bring public knowledge into line with current medical advances as a means to securing their co-operation in reporting symptoms to their doctor earlier rather than later. Many, at present, live in fear and uncertainty, often needlessly or until it is too late. Yet about 25 per cent of the deaths from cancer in Bristol in 1950 were from cancers in sites which were accessible and which would have had a more hopeful prognosis if diagnosed early.

Mortality

In 1950 there were 871 deaths from cancer in Bristol—463 males and 408 females. This represents 17.17 of all deaths (5,073) in the city in that year—roughly one in every six deaths was from cancer.

BRISTOL DEATHS (MALE AND FEMALE), 1950

	Under 45	45—	55—	65—	75+	Totals
Total deaths	569	417	821	1,250	2,016	5,073
Cancer deaths	65	114	221	263	208	871
Cancer deaths as % of deaths in each age group ...	11.4	27.3	26.9	21.0	10.3	17.2

The national figures are equally revealing.

Although cancer is often regarded as a disease of old age, one in three of those who die from cancer are under 60 years of age, and of these two in three are under 50 and one in five under 45, which suggests that thousands of useful lives are lost each year.⁴ It has been estimated that over 50 per cent of cases are seen for the first time when the tumour is in an advanced stage.

There are two causes for this state of affairs :

- (1) *No symptoms.* In some cases the disease does not give rise to symptoms until it is far advanced.

- (2) *Symptoms, but delay in seeking advice.* In other cases the tumour grows very rapidly after the symptoms have been noticed, but advice is not sought early enough; or the symptoms are present for a considerable time but are neglected.

This pamphlet sets out a scheme whereby some of these difficulties can be met, at least in part, by health education and so help to reduce delay and ensure early treatment.

As an illustration 7,875 people in England and Wales died from cancer of the breast in 1950 (78 in males) with an average delay figure of six months from the appearance of first symptoms. Yet figures quoted here and elsewhere reveal a two-thirds recovery ratio of patients alive and well if the breast cancer is treated in the early stages.

Some figures on mortality from cancer in Bristol are quoted hereunder in order to emphasise some of the data with regard to sex, site and age group.

(a) CANCER BY SEX AND SITE, BRISTOL 1950

Male

Site	Cancer deaths	As % of total male cancer deaths
Digestive organs and peritoneum.	212	45.79
Respiratory system	134	28.94
All other sites ...	59	12.74
Genito-urinary organs.	58	12.53
TOTAL	463	100%

Female

Site	Cancer deaths	As % of total female Cancer deaths
Digestive organs and peritoneum.	191	46.81
Respiratory system	21	5.15
Breast ...	71	17.40
Uterus, ovary, fallopian tubes, etc.	68	16.67
All other sites* ...	57	13.97
TOTAL	408	100%

* Including leukaemia and aleukaemia

Examination of these tables reveals that more men die from cancer than women; that cancer of digestive organs is more frequent in men, but is responsible for a higher percentage of female deaths; that more than six times as many men die from respiratory cancer than women; that about 34.1 per cent of cancers causing deaths in women are in accessible sites.

(b) CERTAIN ACCESSIBLE CANCERS BY SITE AND AGE GROUP**Female**

Site	Under 45	45+ —55	55+ —65	65+ —75	75+	Total female	% of female cancer deaths
Cancer of breast	8	15	20	16	12	71	17.4
Uterus	3	5	17	11	5	41	10.1
Ovary, fallopian tubes, etc.	4	5	12	3	1	25	6.1
Female (genital) organs (other).	—	—	1	1	—	2	0.5
All sites	15	25	50	31	18	139	34.1

It is noteworthy that more than 28 per cent or over one in four of female deaths in this group of cancers is under the age of 55. Over 32 per cent of the cancers of the breast are under the age of 55 and 20 per cent of cancers of the uterus.

REFERENCES (Quoted or Consulted)

¹ "Education of the Public Concerning Cancer", *B.M.J.* No. 4669, 35, 1950, Malcolm Donaldson, F.R.C.S.

² "Propaganda to Combat Cancer", *The Medical Press*, No. 5873, November 28, 1951, Professor A. Rendle Short, M.D., F.R.C.S.

³ Figures on delay and prognosis are provided by the S.W. Cancer Records Bureau and those with regard to cancer deaths by the Public Health Department.

⁴ *Studies on Medical and Population Subjects No. 3*, Dr. Percy Stocks (Registrar General, H.M.S.O.).

Appendix "A"**CANCER CAN BE CURED**

People are more pessimistic about cancer than the facts warrant. The cured patient has seldom been told that he or she ever had a cancer, whereas everybody hears about the hopeless case. Orthodox medicine and surgery have more to offer than is generally expected, and it is to the results of routine treatment, such as can be obtained at any well-equipped hospital, that we desire to draw attention in this communication.

The commonest cancers in women affect the breast, or uterus (womb). Here the results, given early treatment (the risks of the treatment are very small indeed), are very good. In the South-Western Area, of all patients with cancer of the breast treated in an early stage, usually by surgery and X-rays, the majority were alive and well five years later. The main reason why the word cancer rings so grimly in the ears of the public is because so many patients fail to take advantage of the benefits of early treatment. At the present time two out of three women suffering from these diseases do not go to the doctor early enough to give themselves the best chance of a cure.

Every woman who knows, or suspects that she has a lump in the breast should see her doctor at once, even if it is quite painless. He may be able to tell her it is not cancer after all. Similarly, any woman past the age of forty who has irregular bleeding from the womb should be examined without delay. If these simple rules were observed, many lives would be saved.

Men with a sore on the lip, tongue, or inside of the mouth, which does not heal within a fortnight, would be wise to see a doctor.

5. BLINDNESS PREVENTION

by J. Wallis (*Health Visitor*)

There are now 326 cases on the register, an addition of 56 new cases during 1952.

The Almoner at the Eye Hospital refers many cases for investigation of home circumstances, follow up and supervision. Many are subsequently referred to Mr. Getliff for blind registration, in which case they are followed up by the home teachers for the blind.

They are followed up by a special health visitor (Sister Wallis) if they are borderline cases and not eligible for registration. A great deal of perseverance and persuasion is often required to keep patients from letting their treatment drop, especially as it is so essential that it be kept up regularly—particularly in the case of glaucoma.

The number of patients taken to hospital was 183, an increase on last year's figure. This is a very vital and much appreciated part of the service. Many of these patients are in a very distressed state of mind, and a great deal can be done in the way of reassurance and encouragement to those whose sight is rapidly failing.

Quite a number of cataract cases refuse operation at first, through needless fears which can be allayed by winning their confidence and explaining away some of their misconceptions.

The co-operation of the Old People's Welfare Visitors has been of great value.

(a) FOLLOW-UP OF REGISTERED BLIND AND PARTIALLY-SIGHTED PERSONS**

(i) Number of cases registered during the year in respect of which para. 7(c) of Forms B.D.8 recommends :	Cause of disability						
	Cataract		Glaucoma		Retrolental fibroplasia	Others	
	•B.	•P.S.	B.	P.S.		B.	P.S.
(a) No treatment ...	19	5	9	3	—	44	13
(b) Treatment (medical, surgical or optical)	7	—	8	3	—	17	9
TOTAL	26	5	17	6	—	61	22
(ii) Number of cases at (i) (b) above which on follow-up action have received treatment.	5	—	8	3	—	16	9

•B.—Blind, P.S.—Partially sighted.

**These figures are supplied by the courtesy of The Welfare Services Committee.

(b) OPHTHALMIA NEONATORUM

(i) Total number of cases notified during the year.	—
(ii) Number of cases in which :	
(a) Vision lost	—
(b) Vision impaired	—
(c) Treatment continuing at end of year.	—

Appendix “ B ”**6. CONSTITUTION OF THE
HEALTH COMMITTEE, 1952***Chairman:*

Rev. A. M. STOCKWOOD, M.A.

Vice-Chairman:

Alderman G. A. WATSON ALLAN

Aldermen:

T. JEFFERIS, Mrs. C. M. KEEL

Councillors:

A. J. ALLEN	Mrs. A. M. CHAMBERLAIN
G. P. C. FORD	S. T. GAMLIN (resigned Oct. 1952)
R. J. B. GAY	Dr. A. M. MACLACHLAN
A. MADDISON	R. C. MANSFIELD
J. J. MILTON	W. J. MUNSLOW
Mrs. A. E. NUTT	L. K. STEVENSON (from Oct. 1952)
A. J. M. WRIGHT (until Nov. 1952)	

7. PUBLIC HEALTH STAFF

Medical Officer of Health (City, Port and Schools): R. H. PARRY, M.D.,
B.S.(LOND.), F.R.C.P., D.P.H., Q.H.P.

Deputy Medical Officer of Health: R. C. WOFINDEN, M.D., B.S., D.P.H., D.P.A.

Principal Assistants

*Chief Assistant Medical Officer of Health and Senior Medical Officer for
Mental Health:* JAMES HUTTON, M.D., D.P.H. (until 31st Jan. 1952).

Senior Medical Officer—Port: D. T. RICHARDS, M.R.C.S., L.R.C.P., D.P.H.

Senior Medical Officer—School Health Service: A. L. SMALLWOOD, M.B.,
CH.B., D.C.H., D.P.H.

Senior Medical Officer—Maternity and Child Welfare: SARAH C. B. WALKER,
M.D., B.S., D.P.H.

Senior Medical Officer—Tuberculosis: (Appointment pending).

Senior Dental Officer: W. H. B. STRIDE, L.D.S.

Chief Sanitary Inspector: F. J. REDSTONE, F.R.SAN.I., F.S.I.A.

Chief Administrative Assistant: P. J. ROOM.

Chief Nursing Officer: Miss L. M. BENDALL

Technical Officers

Personal Assistant to the Medical Officer of Health: D. M. EVANS, B.A.

Medical Records Officer: R. G. EMBLEM (until 30th Nov. 1952).

Nutritionist: Miss C. M. WOOD, M.A.

Consultant Bacteriologist

Professor K. E. COOPER, B.SC., PH.D., M.R.C.S., L.R.C.P., A.I.C.

Deputy Consultant Bacteriologist

H. R. CAYTON, M.B., CH.B. (EDIN.)

Public Analyst

E. G. WHITTLE, B.SC., F.R.I.C.

SECTION F

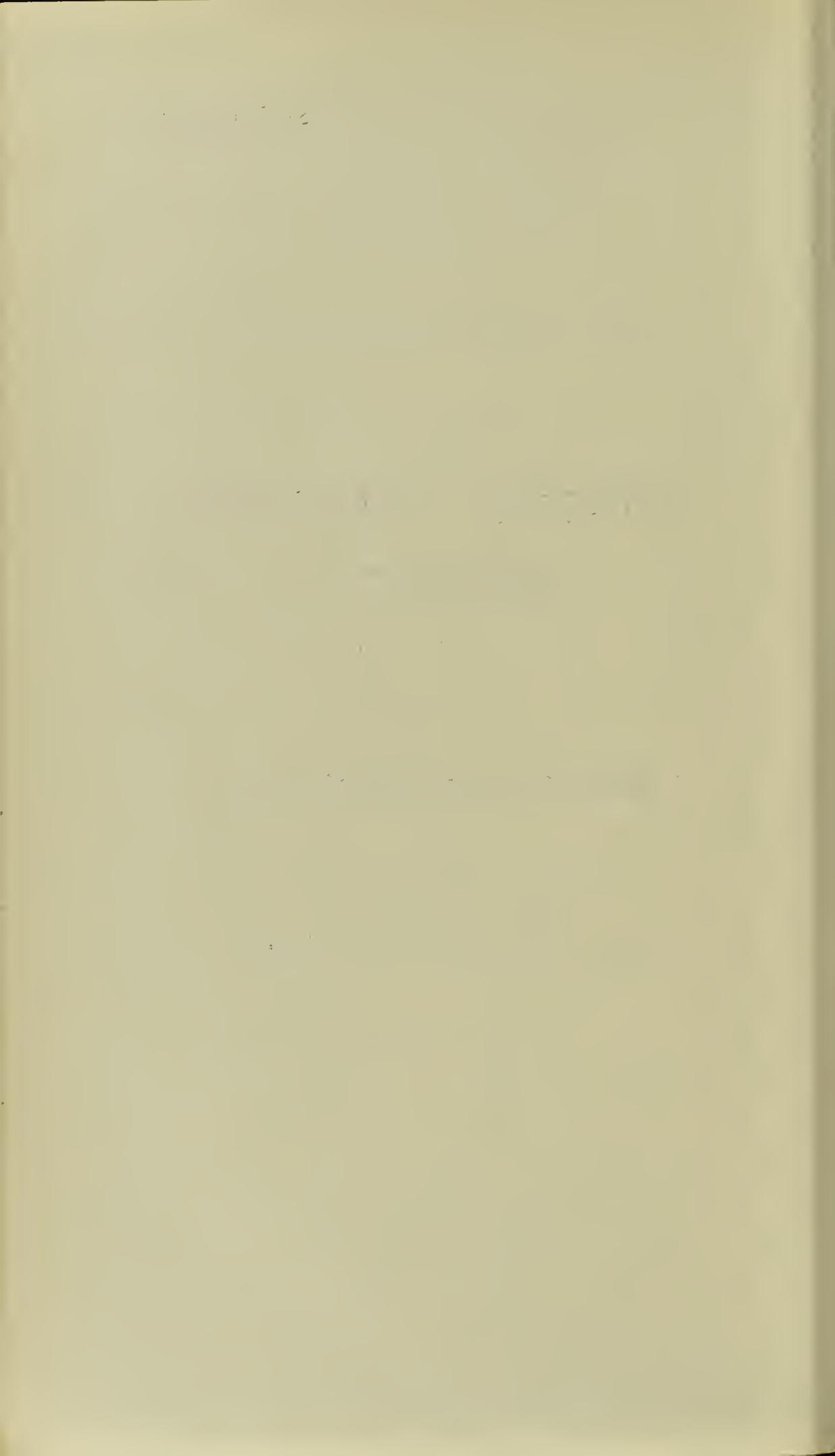
SCHOOL HEALTH SERVICE

Report of School Medical Officer

by

A. L. SMALLWOOD

(Senior Medical Officer School Health Service)



INDEX

	PAGE
Accidents to school children	5
Aural clinics	17
Blind children	22
Cardio-rheumatic clinic	35
Child guidance clinic	11
Chiropody clinic	14
Clinics... ..	45, 62
Co-operation of parents	41
Delicate children	28
Dental clinics... ..	15
Deaf children... ..	24
Deaths of schoolchildren	14
Diabetic children	31
Educationally sub-normal children	26
Employment of children	19
Enuresis clinic	20
Epileptic children	31
Eye clinics	21
Home and Hospital Teachers' Service	30
Hospital Schools	35
Immunisation	37
Infectious diseases	37
Infections in schools... ..	37
Infestation	46
Maladjusted children	12
Mass Radiography	56
Medical examinations of entrants to teaching profession	40
Medical inspection	40
Milk and meals	41
Minor ailments	43
Nursery schools and classes	46
Nurses' inspections	46
Open air schools	28, 29
Orthopaedic and postural defects	48
Partially sighted children	22
Partially deaf children	24
Physical education	48
Physically handicapped children	28
Psychological service	49
Ringworm	44
Scabies	45
School premises	50
Spastic children	31
Special schools	22
Speech clinics	51
Staff	63
Statistical tables	66
Sunlight clinic	72
Treatment of pre-school children	47
Tuberculosis	54
Youth Employment Service	57

INTRODUCTION.

A.L.S.

Again this year we have done our best to make this Report interesting and informative, rather than a dull catalogue of statistics. It is probable that the various contributors have had a certain stimulus to literary effort, and we hope that this will continue to improve the Report in future. This year all notes about handicapped children have been placed under this heading, rather than, as previously, split up under the two headings "special schools" and "handicapped children". In this group I should like to mention the opening of a small school for spastic children in September (page 31). An interesting report on accident-prone children is contributed by Miss C. E. Cooke (Senior Woman Organiser of Physical Education) (page 5).

I am very happy to acknowledge the considerable assistance given by the various contributors to the making of this Report, many of whom have only tenuous ties with the school health service. The closest of collaboration exists with the Chief Education Officer and his staff, and the teachers continue to be of the utmost assistance to the work of the school health service. One is bound to record the certain buoyant optimism which is now apparent in the service after the suspicions engendered by the National Health Service Act of 1946, and it is becoming increasingly clear that the general practitioner, the hospital and the school health service have very important functions to fulfil, and that each must respect the ability and duties of the other. There is an especial goodwill between the staff of the Children's Hospital, headed and inspired by the Professor of Child Health, and the School Health Service. In spite of difficulties the other branches concerned with child health have continued to give, however, closer collaboration on individual children.

Once again the service owes a debt of gratitude to Mr. J. H. Middleton who has the yearly task of persuading the various contributors to write their sections of the report reasonably early and who is responsible for assembling the various portions into a coherent whole.

ACCIDENTS TO SCHOOL CHILDREN

A.L.S.

One of the constant irritations is that of children who injure themselves at school. Very often the parents think that a very much higher standard of care should be exercised at school than they themselves would exercise at home. It is known that the teachers also are concerned about the possible risk to the children who are in their charge during the time they are at school. In view of this, it was thought desirable to make some preliminary investigation into the causes of accidents at school, with particular reference to the possibility of discovering those children who might be accident prone. The attention of the teachers was drawn to this matter at a meeting of teachers attended by Professor Neale, Professor of Child Health, University of Bristol. The difficulties in this subject are known to be immense. The more dramatic accidents are, of course, easy to record, and always have been the subject of a report which is sent to the Education Office. Other accidents have often been concealed by the child lest he incur the wrath of the teacher or parent, e.g. in the case of the boys it is thought to be rather tough to conceal the result of accidents, whereas girls are more likely to seek sympathy and attention, even for a slight scratch. In some cases it is well known that certain types of accidents occur perhaps because of the physical conditions in which the children live. Teachers are, of course, very prone to point out the deficiencies of school floors, especially in halls where physical exercises are held, or defects in the surface of the playground where the children are relatively unsupervised. All sorts of imponderables make the task of recording accidents difficult. Nevertheless, it was decided to try to extract some information about what was happening to the children in schools, and the following is an account relating to the years 1951 and 1952. The numbers are too small to be broken down with profit to refer to individual schools, but on first sight it does not seem that any particular school has any undue proportion of accidents occurring in it.

C. E. Cooke.

One of the most important causes of morbidity in children is that of accidents in the home, school, or street, as has been shown by Downer, (1950).

In the tables which follow, the figures are taken from the accident report forms sent by Head Teachers to the Education Department whenever an accident worthy of note has occurred. These reports are, therefore, bound to vary considerably from school to school according to the accident consciousness of individual Head Teachers.

A table of accidents involving ambulance cases not connected with the schools is also given but referring only to the period from September to December, 1952. It will be seen that considerably more accidents occur out of school involving the need for sending an ambulance to take the child to hospital than occur in school, the proportion being about five to three. The number of these cases for the four months concerned was 254 (59 girls and 195 boys) and they were classified into (a) cuts (b) falls (c) burns and (d) street accidents.

Falls were by far the most numerous of the ambulance cases, especially in the months of September (30 out of 58) and October (38 out of 81), the boys once more outnumbering the girls. The highest number of casualties occurred in the five-year-old group. Fabian and Bender point out that the highest number of accidents occurs in children of 5—6 years. It is difficult to know how to assess the severity of these in comparing them with accidents that occur in school. Presumably they ought to have been more severe than the school accidents, but there is no way to be certain about this. The ambulance service does not wait for a medical certificate before removing the child to hospital, but is called out at the behest of the individual householders whose standards of need may vary widely.

The total number of accidents in schools reported in two years is as follows :—

1951	...	476 (girls 161)	
		(boys 315)	
1952	...	448 (girls 156)	
		(boys 292)	(Table 1).

TABLE I

This table shows the numbers of accidents that have occurred in the different months to each sex. It will be seen that in 1952 more accidents occurred outside school than in school and these were probably of the more serious type only, although it must be taken into account that had these happened at school, teachers would have been able to deal with some of them locally.

	Jan.		Feb.		Mar.		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		Total	
	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.
1951 Totals	12 30	18 30	12 35	23 35	7 27	20 27	18 60	42 60	14 48	34 48	15 52	37 52	17 45	28 45	— Holiday	— Holiday	10 39	29 39	30 66	36 66	15 40	25 40	11 34	23 34	161 476	315 476
1952 Totals	21 46	25 46	15 38	23 38	17 53	36 53	8 21	13 21	16 49	33 49	12 44	32 44	13 40	27 40	Holiday —	Holiday —	19 50	31 50	17 39	22 39	11 41	30 41	7 27	20 27	156 448	292 448
Ambulance cases in 1952 not connected with schools	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13	45	21	60	16	44	9	46	59	195
Totals	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	58	58	81	81	60	60	55	55	254	254

TABLE 2—TYPES OF ACCIDENTS

1951

	Ages	5		6		7		8		9		10		11		12		13		14		15		16		Total		Total
		G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	
Fractures ...	...	—	—	4	5	3	5	4	5	2	4	7	—	2	4	5	5	10	4	5	11	2	4	—	2	44	49	93
Dislocations ...	...	—	—	—	1	—	—	1	1	—	1	1	—	—	1	—	2	1	1	1	4	1	—	—	2	2	12	14
Sprains ...	...	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	2	4	2	1	4	—	—	—	14	10	24
Cuts... ..	...	3	6	2	6	1	11	3	2	2	3	1	4	3	5	3	5	4	12	1	14	—	19	—	2	23	89	112
Squeezed fingers	...	1	—	1	—	—	—	1	—	1	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	4	2	6
Collisions ...	...	—	1	—	—	—	3	2	1	2	—	1	1	—	4	2	2	1	2	—	1	2	—	—	—	14	17	31
Falls ...	...	4	13	1	10	3	13	6	14	8	5	8	10	7	5	3	5	1	5	2	6	2	3	—	—	45	93	138
Burns ...	...	—	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	3	1	1	—	—	—	—	2	5	7
Splinters ...	...	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	1	1	3	4
Misc. ...	...	—	—	—	1	1	2	—	4	2	3	—	—	1	3	3	6	—	3	3	6	2	6	—	4	12	35	47
TOTAL																										161	315	476

TABLE 3—TYPES OF ACCIDENTS

1952

	Age	5		6		7		8		9		10		11		12		13		14		15		16		Total		Total
		G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	
Sex		G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	
Fractures ...	...	1	3	5	4	3	6	2	5	1	4	4	3	3	5	4	2	1	9	5	2	7	-	-	29	52	81	
Dislocations ...	...	-	-	-	-	1	2	-	1	1	-	-	-	-	-	-	-	2	2	1	2	1	2	3	10	13		
Sprains ...	...	-	-	-	-	-	-	-	-	-	-	2	2	3	5	2	1	-	2	1	3	-	-	10	17	27		
Cuts... ..	...	8	3	5	4	2	4	1	1	1	5	1	3	-	-	-	6	5	7	9	3	7	1	33	49	82		
Squeezed fingers	...	1	-	-	-	-	1	1	-	2	-	-	-	-	-	-	-	1	-	1	1	2	-	3	7	10		
Collisions ...	...	-	4	6	3	-	2	-	-	-	-	-	4	-	-	-	-	-	-	-	-	1	1	7	16	23		
Falls ...	...	6	14	6	14	7	10	5	15	6	12	8	13	7	10	2	7	5	9	3	6	2	7	-	57	118	175	
Burns ...	...	-	-	-	-	-	-	-	-	-	-	-	1	2	-	1	1	-	-	-	-	-	-	-	3	2	5	
Splinters ...	...	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	2	2	4	
Misc. ...	...	-	2	1	1	-	-	-	-	2	-	-	-	1	3	1	2	4	3	1	3	-	2	-	9	19	28	
TOTAL		156		292		448																				448		

* Boy aged 17.

Tables 2 and 3 show the accidents that occurred in the various age groups in the years 1951 and 1952 classified in types. Details as to whether these accidents took place in games, physical education, classroom or playground have also been given, but for simplification these are all included together in this table.

The figures given under "cuts" are, in the 5—10 age groups, mostly cuts sustained by glass, bumps in corridors, cloakrooms, and lavatories, while in the older age groups these have mostly been caused by the use of woodwork or gardening tools, or by thrusting arms through glass doors or windows. Only one cut was caused by a knife. A special column has been given to squeezed fingers; this seems to be one of the more preventable accidents. Collisions were mostly caused by children bumping into each other or into a wall and in the majority of cases this happened during playtime in yards without climbing apparatus.

Falls were by far the most numerous as will be seen; most of them were slight, but sometimes they necessitated one or more stitches and sometimes caused concussion. Some were caused during physical education lessons but only three involved climbing apparatus. In two of these cases the children concerned had been using the apparatus against orders during a dinner hour, and were unsuitably clad. It may be interesting here to compare a finding by Dunbar who says that a high percentage of accidents in children occur when doing things forbidden by parents. Dietrich also, in writing about very young children, says "when the child begins to climb his actions should be neither forbidden nor dramatized." He goes on to say that in modern education a child must be taught to expect falls and therefore think where he is going to fall. Later on when the child is older and comes to school he is taught not where to fall, but how to land with ease from varying heights, and how to run on hands and feet if he should trip up. Two fatal falls occurred in 1952. One boy of five fell off a balancing bar and injured his head on the ground. Two small girls were holding his hands so that he was not free to land independently. The other case was that of a boy of 14 who fell from a wall during playtime and his head struck the ground.

Accidents in the "miscellaneous" column include hits on the head by a ball or bat, fits, falls in the swimming bath and feet trodden on by other children or on which equipment fell. It will be seen that in the "fracture" group the numbers are fairly equally divided between the sexes and occur at all ages. It may be of interest to note that at the ages of nine and ten, when children are physically most alive as regards movement, the numbers of accidents in these groups in 1951 are practically the same.

After the age of ten, boys sustain more falls, cuts and fractures during games than do the girls, but this is to be expected from the nature of the games and of the boys, and could not be altered even if it were desired.

Accident-Prone Children.

Much has been written on the accident-prone child, and the following notes from various sources may be of interest.

K. MARBE, Munich, 1926, was first to make observations that there are individuals with an accident habit.

A. ADLER, Vienna, 1934, suggested unknown factor in human personality responsible for repetition of accident in same person.

"Accident habit should be looked on as 'behaviour problem.' Improve conditions and relieve child of his feeling of guilt."—FABIAN and BENDER.

"It may be that accident proneness is not such a permanent characteristic as is generally supposed."—MACKETH, R., 1951 *New Biology* No. 11. 88.

"There is also the possibility when investigating accidents that what is being examined is proneness to report accidents not proneness to experience them."—*B.M.J.*, 20th September, 1952.

The true accident-prone child is hard to find. Of the four children mentioned in the last report as being possible "accident prone" not one has had an accident mentioned in 1952. The following reports about these children may be of interest.

- (a) A boy of 6 who had a father who sparred with him to make him stand up for himself.
- (b) A boy of 6 who had a mother who was quick moving, probably impatient at slowness of child.
- (c) A girl of 6 who had three times cut the back of her head after slipping.
- (d) A boy of 7 who seemed to rely too much on mother's help.

Is it possible that the security offered by the free approach enjoyed in the schools concerned may have had a bearing on their freedom from accidents? In three of the schools concerned the children have easy access to climbing apparatus.

Records of names recurring since 1948 have been kept and twenty-two names recur twice, two three times, and one, a possible "accident prone" four times. A visit to this last boy's home confirmed that up to last September he was continually having accidents, and the mother dreaded to think how he would return home on a Saturday. Now, however, she says that George, having apparently reached the age of discretion at 11, has ceased to have accidents. He is the third child of a family of five. The home is a very poor one, none of the other children make a habit of accidents, and George's headmaster reports that he is of average intelligence and a very normal boy. He is quick in his movements and it is doubtful if this boy has ever suffered from "parental over-authority."

CHILD GUIDANCE CLINIC

R. F. Barbour.

Changes of Staff :

Miss Ann Watt Hepburn, M.A., Ed.B., Educational Psychologist, who came to the Clinic in February, 1949, left on 30th April, 1952, in order to get married. She is now working at Crayford Child Guidance Clinic, Kent.

Her place has been taken by Mrs. Jean Vant, B.A., who came to us from the Devon County Child Guidance Service.

Miss Pamela Regan, B.Sc., Educational Psychologist, joined the Staff on the 11th February, 1952.

Mrs. Joanna Page was appointed in June, 1952, to fill the second Psychiatric Social Worker's position.

The main work of the Clinic has gone on during the last twelve months with little change. The following figures give the comparison between 1952 and 1951 :—

	1951	1952
<i>Psychiatric—</i>		
Diagnostic interviews	320	334
Physical examinations	320	314
Treatment interviews	1,032	868
Parent interviews... ..	38	118
Others interviewed	22	13
<i>Psychological—</i>		
Examinations, including Juvenile Court cases	540	628
Treatment interviews	627	730
Parent interviews... ..	73	59
Others interviewed	38	21
Other visits	66	49
<i>Social—</i>		
Interviews with parents	1,251	1,288
Interviews with others	30	11
Home visits	93	57
Other visits	9	2

Figures, however, convey little regarding the quality of the work and statistics can be misleading unless there are very full notes ; for instance, the proportion between treatment and diagnostic interviews varies at this Clinic as there is one session which is changed from diagnostic to treatment interviews according to the length of the relative waiting lists. Pre-war 150 new cases were considered to constitute a fair load for the average Child Guidance team : in Bristol we have the equivalent of two teams and the figures roughly correspond.

Unfortunately, it became necessary to close "Claremont," the hostel for maladjusted boys, at the end of the Christmas term.

The term "maladjustment" signifies a lack of adaptability, either internally, when it may show as tension or physical illness, or externally, when it may take the form of behaviour unacceptable to the group in which the child is placed.

Sometimes the fault is on the side of the child. Certain children with atypical constitutions (cerebral dysrhythmics) frequently require a greater degree of acceptance and re-assurance than normal children. The child who is separated from its mother through hospitalisation or similar cause may, on re-union, present emotional demands that the parent is unable to satisfy. Either of these groups may feel rejected and, in compensation, show difficult behaviour.

On the other hand, the fault may be on the side of the environment which is too repressive. The child who is unable to find adequate outlets either withdraws and seems to lack concentration, or becomes obviously unhappy and depressed. He may, however, become over-aggressive instead and take from the environment what is not freely given.

This "demandingness" of maladjusted children has to be understood and respected and at times makes the sharing of accommodation and playing-fields with other children not an easy matter.

Originally the idea of having a hostel within the City boundaries seemed a good one. Administratively it was convenient, and a close touch could be maintained between the boys and their homes. Further,

they could go to a variety of schools, a problem which may cause difficulty in the country if a big group has to be assimilated by a single village school. However, the problem of providing the space and freedom necessary for this type of boy on the site originally chosen proved to be insoluble.

Another factor was that the local demand for the accommodation was also somewhat smaller than anticipated. Helping families where there is maladjustment involves a fair appreciation of the difficulties on both sides. Too frequently, parents tend to regard difficulties as all on the child's side and, when they discover that they themselves have to modify their behaviour, their co-operation is less keen. Actually one in four of the parents, where the Clinic Staff considered that admission to the hostel was desirable, eventually refused to give permission for their child to leave home; in some cases it being very clear that the parents were unable to accept the implication that somebody else could look after their child better than they could.

There were fourteen boys in the hostel at the time of the closure; four were London boys, one of whom had improved to such an extent that he was able to return to his home. The other three children returned to the London County Council with recommendations concerning the further special educational treatment that they required. One other boy was from Somerset, and the Somerset Authority accepted responsibility for him. Of the nine Bristol children, three were returned home and will not require further treatment, two others, although able to return home, may require further treatment. One boy was transferred to Aymestrey Court Residential School for Maladjusted Boys, Liverpool, two children were taken into care by the Children's Committee, and in the case of the remaining boy a vacancy is being sought in a residential school for maladjusted boys. Negotiations are proceeding with the Somerset Authority, with a view to a small number of places being allotted to this Authority in the new hostel for maladjusted boys which is shortly to be opened at Southfields, Nr. Ilchester.

Our good wishes go to the Warden and Matron, Mr. and Mrs. Gilpin, who have taken up similar positions at the Oakbank Boys' Hostel, Keighley, Yorkshire.

At the end of the year eight maladjusted children were being maintained in various residential schools and hostels as follows :—

	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Bodenham Manor School, Herefordshire ...	—	1	1
St. Peter's Boarding School, Leeds ...	—	1	1
St. Andrew's School, Bridgwater ...	1	—	1
The Sutcliffe School, Winsley, near Bath ...	3	—	3
Wellesley Training Home, Windsor ...	—	1	1
St. Francis School, Hooke ...	1	—	1

During the year a close liaison has been built up with the Children's Department Reception Centre at Mangotsfield. Mrs. Jean Vant, B.A., one of the Clinic's educational psychologists, visits there at least once a week and, with the Director of the Clinic, attends the monthly disposal conferences. At these conferences the progress of each child is considered, the length of stay in the Hostel discussed, and an attempt made to match the foster-home with the child. It has been found that the psychologist's comments on the emotional development of the child are extremely useful in deciding when the child is really ready to venture forth to a foster-home or another school.

Reference was made in the last Annual Report to the 1951 follow-up of the 1946 cases. Further work has been done on the material collected. One fact in doubt was whether the "untraceables" would be like those traced. The definition of "untraced" was that the present address of the family was unknown either to the present occupants of the house where they lived when attending the Clinic, or to their immediate neighbours. Did being "untraceable" indicate a lack of social responsibility and, possibly, a greater degree of emotional instability? A sample of "untraced" cases was taken and eventually, thanks to the co-operation of the Immigration Department, the Prison Commissioners and other bodies, all 36 cases were located and the sample was found not to be significantly different from the majority which were found.

A comparison was also made between the information obtained from those people who voluntarily returned the prepaid address-card with those who "could not be bothered to" but who were available when the research worker called. Again, there was no significant difference. These findings suggest that, as far as Child Guidance cases are concerned, there is no need to trace every case; that the factors of untraceability or degree of lack of co-operation in returning an address-card are unlikely to influence the case results.

CHIROPODY CLINIC

L. Tasker.

The number of treatments showed another slight increase to 3,843, compared with 3,292 in 1951. New cases were 833, including 6 from nursery schools, against 835 in 1951.

Plantar Warts were again numerous, there being 581 new cases (3,181 treatments). Other groups remained approximately the same as other years.

During the year some 20 cases were referred to the Orthopaedic Department for operation or physiotherapy.

The following is a summary of treatments given during 1952 :—

				<i>First</i>	<i>Other</i>
Metatarsalgia	...	...	...	3	13
Hammer Toes	...	...	...	16	64
Plantar Warts	...	...	...	581	2,600
Pes Cavus	...	...	...	1	4
Tarsal Strain...	...	...	...	24	65
Hallux Valgus and Rigidus	...	...	...	23	33
Miscellaneous	...	...	...	185	231
				833	3,010

DEATHS OF SCHOOL CHILDREN

The following table of figures of deaths occurring amongst school children during the year is given by courtesy of the statistical section of the Health Department. This corresponds to a death rate of .43 per 1,000 school children. It will be noted that accidents caused an even higher proportion of the total number of deaths than last year, and emphasises the need for continued attention to be given to the problem of preventing accidents generally.

				Boys	Girls
Pulmonary T.B.	...	...	...	—	—
Non-pulmonary T.B.	...	...	...	1	—
Malig. Neoplasm	...	...	...	—	1
Diabetes	...	...	...	—	1
Heart disease	...	...	...	—	1
Pneumonia	...	...	...	—	1
Bronchitis	...	...	...	1	—
Nephritis	...	...	...	—	1
Congenital malformation	...	...	...	—	2
Epilepsy	...	...	...	1	—
Mastoiditis	...	...	...	—	1
Tumour Brain	...	...	...	—	1
Rheumatic Fever	...	...	...	—	1
Road accidents	...	...	...	5	1
Other accidents	...	...	...	6	1
				—	—
				14	12
				—	—

DENTAL CLINICS

W. H. B. Stride.

The dental staff was increased to a total of eight full-time officers by the appointment of Mr. R. Hepburn in October.

Mr. H. Hazell continues to give three sessions a week by arrangement with the Regional Hospital Board. The full number of sessions given by part-time practitioners remained at thirteen a week up to the end of the year.

The number of primary and secondary school children inspected in school during the year was 36,059 as against 37,247 last year, and this represents about ten sessions less given to inspection. The number treated, however, was 23,553, compared with 21,879 in 1951. In addition 993 nursery school children have been inspected and 288 received treatment.

The school population had increased to 60,548 by December, and our present staff, the equivalent of nine full-time dental officers, is quite inadequate to deal with such a large number of children. Every effort is being made to get more full-time staff, and an advertisement in October resulted in four applications, two appointments being made to commence duty on 1st November. Only one applicant, however, took up the post, the other accepting a vacancy which had occurred at the Bristol Dental Hospital. For the time being this has left us behind in the race to secure the limited number of dentists who are offering to take up school work; no applications have been received, since, to further advertisements.

It is hoped that it will be possible to get more help from part-time practitioners if full-time officers cannot be obtained, but this does not solve the problem, which is to increase the staff from a pre-war maximum of ten to a total of sixteen, the long-term aim for the future. The greater difficulty, however, is to provide surgery accommodation for the additional staff, as increased clinic accommodation which is to be provided in 1953 and 1954 only means that two more surgeries will become available.

There has always been a certain number of parents who take their children to private practitioners, and this number is increasing at the present time. Many requests are received, however, for emergency treatment. This is one part of the service that must always be regarded as a priority, since many of the children brought with acute conditions need

immediate attention, and in some cases medical attention is needed before the dental treatment can be carried out.

It is possible that a partial solution of the problem may be that the school service in Bristol has always worked very happily and closely with the private practitioners who are now usually willing to undertake the treatment of some children. Should it become necessary to ask for further help in view of our own staffing difficulties, a policy might be instituted so that a certain number of the older patients could be encouraged to attend the private practitioners. In any case the decision always rests with the parent as to where treatment is obtained.

The work of the oral hygienist continued until the end of September when Miss Lewis left to get married. It is unfortunate that this has left another gap in the service, but an appointment will be made next year. Forty mothers and one hundred and twenty-four children attended the oral hygienist for scaling and polishing, and instruction in oral hygiene. This entailed 651 attendances, as the great value of this work lies in the regular follow up.

The periodic re-examinations were continued, during the year, of children who had been treated by local application of fluoride.

Each year a certain number of children attend as a result of accidents to the front teeth, and in the past those who, as a result, lost one or more of their teeth have had to be sent to the Bristol Dental Hospital or to the private dentist. This year a start has been made in the supply of dentures, and Mr. A. H. V. Williams, one of the Authority's dental surgeons, has fitted twenty-seven children with partial dentures. Closely associated with this, and with the orthodontic session, is the taking of X-rays for diagnosis, and during the year Mr. Williams has taken 311 films.

The arrangements commenced in October, 1947, whereby a number of Bristol school children are inspected and treated by the Department of Children's Dentistry at the Bristol Dental Hospital were continued during the year.

The figures relating to the children dealt with in 1952 are as follows :

				1952
Number of cases inspected	...	...	...	1,098
Number needing treatment	...	...	...	937
Number of new cases treated	...	...	...	631
Number of others treated	...	...	...	460
Total attendances	...	...	...	1,091

Orthodontic Clinic

Since 5th July, 1948, the treatment of all orthodontic cases has been undertaken by the Bristol Dental Hospital. A full-time orthodontist has been appointed by the Hospital, and attends a diagnostic session at the Central Clinic each week. Cases needing fixed or removable appliances are referred to the Dental Hospital for treatment. This diagnostic session is proving of the greatest value as in so many cases it is necessary that the children should be seen at an early stage when the tendency to abnormality is first noted. This session is well attended and cases can be seen quickly for diagnosis. In addition some of the cases seen respond to simple treatment methods, e.g. extraction of a tooth or teeth and special exercises to move a tooth into place, and can be successfully treated without

reference to the Dental Hospital. Details of the work at the Diagnostic Clinic during the year are as follows :—

	1952
Number of new patients	533
Number of attendances	905
Number referred to Dental Hospital	274
Number completed	113

EAR, NOSE AND THROAT SERVICE

Aural Clinics

G. R. Scarff.

Twenty-Five Years in Retrospect

During the past year the number of children suffering from aural defects attending the Clinic was 248 (including five pre-school cases and three nursery cases). Out of a total of 305 new cases of middle ear suppuration found at school medical inspection, 87 failed to clear up with a few weeks' routine treatment at the minor ailment clinic and were therefore referred to the aural clinic. Only 20 of these cases were attending at the end of the year.

In contrast to this, in 1928 the number of new cases of middle ear suppuration found at school medical inspection was 625, while the number of children attending for treatment of chronic ear discharge was 1,020, indicating that in some children the condition dragged on from year to year.

The table below shows the number of cases of middle ear suppuration found at school medical inspection at the end of each five-year period until the war, and yearly since. These cases are treated by routine aural treatment for two weeks (see (a) 2 below), and if not dry are then referred to the aural clinics, the attendances at which are given below.

	1928	1933	1938	War records not comparable owing to varying population.	1947	1948	1949	1950	1951	1952
No. of cases found at School Medical Inspection ...	625	705	562		498	658	377	306	254	305
No. of cases treated at Aural Clinics...	1020	676	293		144	196	159	148	110	87
No. of cases still attending for treatment at the end of the year ...	Not available	122	69		29	40	34	26	26	20

These figures show a steady reduction in the number of cases of *chronic* middle ear suppuration treated at the aural clinic while the number of cases of aural discharge found at medical inspection showed little change until 1948. Since then there has been a very definite reduction.

As far as can be ascertained there has been no marked decrease in the amount of acute upper respiratory infection during this period. It would therefore appear that parents are becoming more aware of the seriousness of otitis media, and it is significant that the drop has occurred since the implementation of the National Health Service Act which

makes the services of a family doctor available to each child. This enables the parent to seek advice early in the disease, so that with modern methods of treatment the ear is healed before the child returns to school.

Factors responsible for the more rapid cure of suppurative otitis media :—

(a) Treatment.

Broadly, chronicity of otitis media is due to three factors :—

1. Persisting infection from a septic focus in the nose or throat, usually associated with an anterior perforation and a profuse mucoid discharge largely arising from the Eustachian tube.

Treatment by removal of the infected tonsils and adenoids and/or treatment of the infected nose and sinuses together with local treatment for the ear, will, if carried out reasonably early, bring about a cure.

2. Secondary infection of the middle ear via the external auditory meatus. Usually the perforation is central and the discharge purulent and non-foetid.

Treatment has been by daily cleaning followed by the insufflation of 2% iodised boracic powder, and has been successful in the great majority of cases.

3. Spread of the infection to the mastoid and attic region with a posterior or attic perforation ; scanty purulent foetid discharge, and sometimes formation of cholesteatoma.

Conservative treatment usually fails, but during the past year Chloromycetin powder (20% in urea) has proved beneficial in the treatment of these cases. Where this has failed after a month's regular biweekly treatment, operation is advised without hesitation, as by modern conservative operative procedures the infection can be eliminated without further deterioration of hearing, and in some cases with marked improvement, where formerly the radical operation with its resultant poor hearing was the only course and was never advised unless the aural condition involved risk to the child if left.

4. A combination of two or more of these factors.

(b) Improvement in the general health of the child.

While the initial drop in the first five-year period occurring in the second half of 1931 and in 1932 (*vide* my report for 1935) was undoubtedly due to the change from wet to dry treatment of the ear, the subsequent steady reduction must also in great part be due to the improving general health of the children, enabling them to build up their own resistance to the infection, and so assisting in bringing about a cure of the disease.

Although these figures are encouraging in showing the improvement in the results of treatment of chronic middle ear suppuration there is no doubt that such an ear is more vulnerable to reinfection, and too much stress cannot therefore be laid on the necessity for the early treatment of the infection. This is shown by the fact that chronic otitis media still stands high on the list of causes for rejection of recruits for the Services.

I cannot end this report without reference to statements regarding ear, nose and throat work which emanated from other sources in previous

reports. These statements were made without previous consultation with the consultants, and in fact do not represent the true position as we see it.

It is to be hoped that this present report has made matters more clear with regard to the association between infected tonsils and adenoids and otitis media. With regard to the high rate of tonsillectomy in 1948 and 1951, it should be borne in mind that this followed years during which routine operations were at a standstill for four months on account of outbreaks of anterior poliomyelitis.

At the end of 1951 children requiring tonsillectomy had been waiting over a year for operation, and it was for this very reason that it was decided to open a special ward for tonsillectomy at Ham Green Isolation Hospital. Further, before the children were admitted, their parents were communicated with to ascertain whether operation was still desirable, and an affirmative reply was received in the great majority of cases.

As stated in my last report, every effort is made to preserve the tonsils until the children have started school, the adenoids only being removed on account of nasal obstruction, and physiological enlargement is never accepted as a criterion for operation.

EMPLOYMENT OF CHILDREN

H. Bingham.

During the year ending the 31st December, 1952, six children were medically examined and found fit to be employed in entertainments.

Appointments were made for a further 658 children to be medically examined as prospective employees. Of these, 643 were found fit, 4 were unfit, and 11 failed to attend the clinic. Employment was divided into the following categories :—

<i>Trades</i>	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Newspapers	519	45	564
Butchers	6	—	6
Grocers	30	—	30
Multiple Stores	—	25	25
Library	—	1	1
Dairy	3	—	3
Bakers	1	—	1
Others	5	8	13
Total	564	79	643

A.L.S.

The types of occupation which children seem to seek remain fairly stereotyped. From time to time Medical Officers who have to furnish certificates, under the Education Act, as to the suitability for employment, are exercised to know what standards to adopt so that children in employment are not rendered unfit to profit by education in school. There are ordinarily very few children indeed who are fit to go to school but who are not fit to undertake the one hour's employment on school days which is allowed by the Bye Laws of the City. As will be seen, of the 647 children

examined during the year, only four were found to be unfit by the Authority's Medical Officers. Although the practice theoretically ought to be of value, in reality it is doubtful whether it is so. It is likely that the very many children who are granted medical certificates of fitness for employment might at some time before their next medical review be temporarily unfit. It may well be, therefore, that the existing practice should be reviewed in this matter. Sometimes the medical examiner is criticised when allowing a certificate to a child with a history of disease, which has perhaps assumed undue prominence in the minds of the parents or teachers. The Medical Officer must, of course, give a certificate on the condition of the child at the time of examination and frequently may not be able to forecast what may happen within the next twelve months. It is interesting to note that the Education Authority has, to some extent, relaxed its stringent requirements for children employed in entertainments.

ENURESIS CLINIC

J. E. Kaye.
S. W. Terry.

During 1952, 332 children have been attending the Enuresis Clinic, 58 of these having been treated since 1950 ; 117 since 1951 and 157 commencing treatment during 1952.

Of this number 67 have been discharged during the year as cured, 64 have shown permanent improvement and are now more or less under observation only, 38 have shown slight but definite improvement, 20 children have presented serious psychological problems and have been referred to the Child Guidance Clinic, and in 49 cases as the children have only just started attending it is too early to assess whether they are improving or not. A group of 29 children has not improved at all.

During the year 65 children who have not attended regularly have been discharged because of the long waiting-list after failing three consecutive appointments. Some of these children had been improving but the majority have shown no improvement at all.

The main cause of failure to attend seemed to us to be the passive attitude of the parents. They had no wish to put any of their own effort into the treatment but expected a box of tablets, bottle of medicine, tonsillectomy or even circumcision to solve the problem. They have been soon disillusioned, lost interest, blamed the doctor for the failure and returned to their personal treatment at home.

We have tried to analyse the group of children who have shown no improvement. There is a group of children, who despite all efforts and co-operation of parents do not improve and do not respond to any treatment. It seems that these children have some anatomical and/or physiological defect of the urinary tract. This group requires full hospital investigation and treatment.

There is another group, fortunately not large, who do not care much whether they are dry or wet. They are usually spoiled, pampered children, whose mothers do everything for them, even thinking. These children have never had proper toilet training. They show no initiative, lack confidence and self-reliance.

The largest group of children who do not respond to treatment are those from over-crowded poor homes. Often they sleep with other children of the family together in one bed, sometimes with adults or with their parents. In some cases they sleep together not because of over-crowding

and lack of space in the house, but because of lack of beds and bedding, or they are put together in one bed because "it is warmer and they do not feel lonely." Very frequently a bedwetter sleeps with children who are dry, and the mother sometimes has difficulty in discovering the culprit. Some parents are ignorant and incapable of following simple and straightforward advice. In some families a tired and overworked mother of several young children simply has no time or strength to give more care and attention to the child suffering from enuresis. It is not uncommon to find in this group of non-improving children a history of rigid or even brutal toilet training and a history of all sorts of treatment of enuresis, methods which often are painful and humiliating. Finally there are children with serious and deeply rooted psychological problems, who respond very little to treatment. Most of these children have been referred to the Child Guidance Clinic and are under treatment or on the waiting list for treatment.

We wish to express here our thanks to the Director and Staff of the Child Guidance Clinic for their help and advice in the treatment of these children.

EYE CLINICS

R. R. Garden.

In 1952, the total number of refractions completed at the clinics was 5,515, including 5,490 cases sent from Primary, Secondary and Special Schools and 25 from Nursery Schools. Of this total, 1039 did not require glasses.

The number of refraction sessions held during the year was 562; spectacles were ordered for 2,371 children (11 from Nursery Schools), and by the end of the period 2,221 pairs had been obtained.

Cases of external eye disease made 4,628 attendances for treatment.

Throughout the year, special consultation sessions were held periodically for the purpose of advising on ophthalmic problems of diagnosis, treatment and education. Among other conditions, 237 cases of squint were dealt with at this and other ophthalmic clinics. Of this total, 85 came from the Child Welfare centres, 7 from Nursery Schools and 145 from other school age groups. The following table, giving in addition the numbers in the previous six years, shows considerable variation in the totals and distribution between the age groups, but no special reasons can be suggested for these differences from year to year. Although one sometimes gets the impression that squint may be on the increase, and although in Bristol the 1952 total is higher than in the previous two years, it will be seen that the greatest number of notifications occurred in 1948.

Squint cases in recent years.

			<i>Child Welfare Cases</i>	<i>Nursery School Cases</i>	<i>School Cases</i>	<i>Totals</i>
1946	...	...	150	18	101	269
1947	...	...	130	9	90	229
1948	...	...	112	17	147	276
1949	...	...	89	22	113	224
1950	...	...	73	6	112	191
1951	...	...	61	10	102	173
1952	...	...	85	7	145	237

There seems to be a decline over the six years 1946 to 1951 in the number of cases of squint referred to the Eye Clinic by the Infant Welfare Department. The figures for 1952 show a slight increase. While fluctuations in the incidence of referral have occurred before, it is tempting to explain this decline by the belief that the children might now be referred for consultant opinion by their own doctors.

As in past years, the aim in regard to squinting children is to detect the condition as early as possible and, by correcting errors of refraction, occluding the straight eye and applying the various orthoptic methods of treatment, to prevent or cure the amblyopia which so readily develops in a squinting eye. A great deal of work on those lines is carried out every year, partly in the school eye clinics and partly in the Orthoptic Department of the Eye Hospital. Children requiring surgical correction of the deformity have their treatment carried out in the same hospital, and during 1952, 90 operations for squint were completed in Bristol cases.

HANDICAPPED CHILDREN AND SPECIAL SCHOOLS

Blind Children

A.L.S.

I have to correct a wrong impression in my last year's Annual Report that the Royal School of Industry for the Blind, Westbury-on-Trym, was directed by the National Institute for the Blind. This is not the case. The school was instituted as long ago as 1793, and is an independent school under voluntary management.

We are conscious in Bristol that a few parents have come to live within the city in order that their children could attend this school from their homes as day pupils. Nine children have been attending as day pupils during the year. We have been concerned about this, in view of the Ministry's desire that blind children should attend as residential pupils. Efforts to alter the parents' view, however, have been unsuccessful and certainly in some cases we have been reluctant to apply any method of compulsion. It is understood, however, that the restrictions in this matter may be relaxed shortly. There were twenty-one Bristol children attending the school at the end of the year, and in the majority of cases the blindness is due to congenital causes. None of the cases is due to ophthalmia neonatorum which once used to be so common.

At the end of the year three children were also being maintained at other residential special schools for the blind as follows :—

Chorleywood College for the Blind, Herts.	...	...	2 girls
Overley Hall Nursery School for Blind Children, Welling-	ton	...	...
	...	...	1 girl

Partially sighted children

As a result of the investigation carried out in the latter part of 1950, details of which were included in the report of the School Medical Officer for that year, the number of partially sighted children attending the special classes at Shirehampton School was reduced to 14, and it was decided to make provision for these children at the day school for delicate and physically handicapped children. During 1951 three Medway huts were installed at the school, two to accommodate the partially sighted children, and one to provide practical instruction for all the children. In February, 1952, the partially sighted children were transferred from the

Shirehampton School to the Novers school for delicate and physically handicapped children. At the end of the year the number of partially sighted children on the registers of this school was fifteen (nine boys and six girls).

The following reports which have been obtained from the heads of the schools on the progress of twelve children, who were transferred to ordinary schools at the beginning of 1951, may be of interest. Ten of the children appear to have made a satisfactory adjustment in the ordinary school, one was admitted to a residential school for the partially sighted, and one has had difficulty in adjusting himself to life in a day school for educationally sub-normal boys. Two of the children were transferred to grammar schools, and both have made very good progress there.

R.F. (age 16). Was definitely behind to start with but picked up amazingly well. I think it was a tremendous help for him to have had the stimulus of a year in an ordinary school.
Southville Sec. Mod.
Boys' School.

B.E. (age 16). Did quite well and did not find her poor sight a handicap. Did not do close work, such as fine needlework, but otherwise took part in all school activities. Believed to have taken a post as clerk.
Speedwell Sec. Mod.
Girls' School.

J.F. (age 15). No difficulty with work at school at all. A nice girl determined to do well and did better than average. Is now a Nursery Helper.
Fonthill Sec. Mod.
Girls' School.

M.F. (age 15). Progressed steadily through the school. Effort above the average. Quality of work in practical subjects above average. Has not been handicapped in any way.
Portway Sec. Mod.
Girls' School.

P.W. (age 15). Settled down to ordinary school life remarkably well and held her own with the other girls in her class. No close work such as fine needlework, otherwise did all school subjects. Went into commercial confectionery work, since good at cookery.
Speedwell Sec. Mod.
Girls' School.

A.W. (age 8). This boy was admitted to Exeter Residential School for Partially Sighted Children on 9th January, 1953, because of home circumstances and has settled down well there.

P.H. (age 13). Has made steady improvement since transfer to ordinary school. Now pursues the same activities as others. I do not think the change has been anything but beneficial to her.
Upper Horfield Sec.
Mod. Girls' School.

D.P. (age 13). It is difficult to say how far David's poor sight accounts for his backwardness and difficulty of adjustment. While a little progress has been made we feel that he should have made more advancement academically.
Russell Town Special
School for E.S.N.
Boys.

R.H. (age 13). Is in the top five boys of Class 2C. Sits near the blackboard. No difficulty whatever with boy in school. Is excused swimming but joins in games to limited extent.
Redcliffe Sec. Mod.
Boys' School.

R.T. (age 11). Is in lower section of Class 1B. In the past his work has fallen behind, but is now improving. Sits near blackboard. At games and swimming his poor eyesight is a handicap.
Redcliffe Sec. Mod.
Boys' School.

J.S. (age 13). At first progress was slow. He was retained in the first form for a second year and progress was much more satisfactory; was first in form in French and Art. His handicap does not cause any serious difficulty, but boy is well above average ability.

K.H. (age 15). Is in Form 3A and is making very good progress; her handicap does not present any difficulty. Is a keen and steady worker.

At the end of the year four partially sighted children were being maintained at residential special schools as follows :—

	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
West of England School for Partially Sighted,			
Exeter	1	1	2
Chorleywood College, Herts	—	2	2

Deaf Children

The Authority provides for its deaf children in Elmfield School for the Deaf, which accommodates 56 children. At any one time only two or three children are on the waiting list for admission, and they are usually of the two to five age group. Included amongst the total complement of the school are always some who are severely partially deaf, and this will continue to be so. It might be desirable in the future to increase the accommodation at Elmfield in order to take a few more severely partially deaf children, both Bristol children on the waiting list, and possibly those living close to the city from neighbouring Authorities. The children continue to be of widely differing abilities, both basically and in their capacity to profit from lip reading tuition. Some who cannot do the latter have been found places in residential schools, but generally speaking the provision for this type of child nationally is poor. During the course of the year two children have been admitted as a result of tubercular meningitis associated with streptomycin therapy, and this makes a total of 4 such cases in the school. There were 57 children in attendance at the school at the end of the year—27 boys and 30 girls, including 2 boys and 2 girls from other Authorities. Of these 4 boys and 2 girls were severely partially deaf cases. In addition 7 children were at residential schools for the deaf as follows :—

	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Beverley Day School, London	—	1	1
Mill Hall (Independent) School, Cuckfield, Sussex	—	1	1
Rayner's School for Deaf E.S.N. Children, Bucks.	1	—	1
Royal School for Deaf, Birmingham	1	1	2
West of England School for Deaf Children, Exeter	—	1	1
St. John's Institute, Boston Spa	1	—	1

Partially Deaf Children

A.L.S.

Mention was made in the report for 1951 of a suggestion to provide for the needs of partially deaf children by the appointment of a peripatetic teacher to visit the children in the ordinary schools and give lip-reading tuition. The children mentioned below were found to be partially deaf and to need special arrangements in the ordinary schools, these children having been referred to the Aural Surgeon for advice. The children were also seen by the Psychologist, and a report obtained from

the Head of the school. In only a very few cases was there found to be any difficulty in the ordinary school, or instances where the children were not working to their full potential. While this may be true of the teacher's view of the case, nevertheless the Authority is advised by its Aural Surgeon that, although these children may be getting on well at the ordinary school with the assistance of a hearing aid, and with a favourable position in the class where they should be able to understand most of what is said, the hearing will tend to get worse after the age of about twenty-five to thirty years. He therefore recommends that they should have lip reading tuition whilst still at the ordinary school. Accordingly the committee resolved to appoint a teacher of the deaf to visit the schools and to give lip reading tuition to these children, an arrangement which is, so far as we know, unique in the provision for the education of partially deaf children.

Partially Deaf Children in ordinary Schools.

C.A. (age 8)	I.Q. 125	Boy is above average intelligence but educationally retarded due to physical disability. Able to lip read a little. Has hearing aid but does not use it.
R.B. (age 11)	I.Q. 93	Not making as much progress in school as the other children. Reluctant to use hearing aid.
R.C. (age 12)	I.Q. 80	Has hearing aid but leaves it off a good deal. Apart from his retardation in reading is doing as well as can be expected.
M.C. (age 8)	P.Q. 94	Little progress in school. Hearing aid not worn.
B.H. (age 12)	I.Q. 101	Holding her own in "C" stream. Does not use hearing aid in school.
B.S. (age 14)	I.Q. 72	Mishears frequently. Would benefit from a special class where she could gain poise by associating with other girls who wear hearing aids.
V.S. (age 11)	I.Q. 104	A pleasant, apparently well adjusted child who plays a normal part in school.
S.S. (age 13)	I.Q. 76	A girl of borderline sub-normal intelligence. Getting on quite well in backward group in school.
M.T. (age 9)	I.Q. 89	Educational attainments satisfactory in relation to mental age.
J.T. (age 11)	P.Q. 89	Deafness seems to vary. Has hearing aid. Making satisfactory progress in school.
R.F. (age 9)	I.Q. 84	Educational attainments satisfactory in relation to mental age. Appears to be overcoming his disability in school.
A.G. (age 8)	P.Q. 110	Satisfactory progress in school. Does not get on with hearing aid.
M.R. (age 7)	I.Q. 90	Attainments satisfactory to mental age. Uses hearing aid in school.

J.C. (age 10)	I.Q. 78	Does not wear hearing aid regularly. Special education most desirable.
P.C. (age 13)	—	More interest in school since wearing hearing aid.
M.C. (age 13)	—	Backward in school. Wears hearing aid.
D.S. (age 10)	—	Progress satisfactory in school. Has hearing aid.
R.P. (age 7)	I.Q. 66	Is handicapped by hearing loss and poor intelligence but is now making some improvement in school work.
V.L. (age 8)	—	Has hearing aid, and since using it has improved in school work especially in reading and number.
P.B. (age 12)	—	Has hearing aid, but is handicapped in school work by hearing loss.
J.S. (age 15)	I.Q. 65/70	Attends Day Educationally Sub-normal Special School.

At the end of the year there were six severely partially deaf children attending the Authority's day school for deaf children and also one partially deaf girl being maintained at Ovingdean Hall Residential School, Brighton.

Educationally Sub-Normal Children

A.L.S.

Educationally sub-normal children form by far the greatest proportion of handicapped children for whom the Authority is asked to make provision by way of special educational treatment. A total number of five doctors on the Authority's staff now apply themselves to the problem of ascertainment, and an average number of four sessions per week is given to this work. The mechanism is that the teacher reports on Form 3 H.P. to the Education Office, and, if it has not already been done, reference is made to the educational psychologist who assesses the child's ability, and lastly the medical officer makes his recommendation after his own interview with the parent and the child. Where the medical officer is at variance with the educational psychologist the policy is for consultations to be made so that an agreed recommendation can be arrived at.

There has been much attention given to the problem of accommodation for children who are found to be educationally subnormal. Bristol has a day school for boys (140 places) which is in an older school building in a congested area of the city, and a day school for girls which in September, 1952, was able to move to a house in very pleasant rural surroundings on the outskirts of the city, and which, with the addition of a prefabricated hall, makes very good provision for 100 girls. The accommodation for juniors, however, is not good. Eighty children are accommodated in an old school building in the centre of the city which is shared with a normal primary school, and there is little space for outdoor activity.

A very desirable move would be for the junior E.S.N. school to be transferred to premises which are more habitable, and in a better geographical site and which would provide accommodation for greater numbers. There is, however, no sign that this is likely to be possible in the near future.

The residential school for senior boys at Kingsdon Manor, near Ilchester (40 places), is in the process of being enlarged to accommodate 60 boys, and it is thought that this will satisfy the needs of the Authority. The residential school for E.S.N. senior girls (40 places) at Croydon Hall, near Washford, North Somerset, is in an isolated position some distance from Bristol, and steps are being taken to find premises nearer Bristol and rather more convenient in character. The chief need, therefore, is for junior E.S.N. places, and the Authority has to some extent tried to meet this need by special classes in ordinary schools of which there are now three, two in the south of the city, and one in the north-west. Although in some schools an attempt is made to keep the backward classes small in number, and much good work is done in this way, nevertheless the waiting list for the junior E.S.N. school is very long, and we believe that this probably does not represent all the children who would benefit by special educational treatment in this age group. A special problem is that of the young E.S.N. child below the junior age group. Very often he is unable to mix with other children and may have habits which make it undesirable for him to associate with them. Hitherto the practice has been to exclude this type of child from attendance at school for some months after reaching the age of five, though it is doubtful whether this policy is really the intention of the Education Act, which enjoins the Authority to provide efficient whole-time instruction for all children who are educable. I have, for this group of children, advocated a special unit with a higher teacher-child numerical relation and run more on nursery school lines. For observation purposes this unit would be invaluable for some children who are in the borderline ineducable group, and who could be given a chance of succeeding in that educational sphere before being referred to the Mental Health Authority as ineducable. The opposite policy of more special classes in ordinary schools seems no easier of fulfilment. New schools which have been built are always on the outskirts of the city to meet the needs of new housing estates and very often are not able to cater for the number of normal children who need accommodation. In fact, of a number of special classes planned, only three have been instituted so far. This clearly means that the policy is impracticable with the present demand for ordinary junior school places.

For special reasons a small number of E.S.N. children are placed at independent schools, and at the end of the year twenty children were being maintained in such schools as follows :—

	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Allerton Priory R.C. Residential Special School, Liverpool	—	1	1
Besford Court R.C. Residential Special School, Worcestershire	7	—	7
St. Christopher's School, Bristol (Day Pupils) ...	4	3	7
St. Christopher's School, Bristol (Resident Pupils)	2	1	3
Camphill Rudolf Steiner School, Aberdeen ...	1	—	1
The Sheiling Curative School, Ringwood...	...	1	1

During the year 51 children were referred to the Local Health Authority for the purposes of the Mental Deficiency Acts ; 21 under Section 57 (3), 1 under Section 57 (3) and (4), and 29 under Section 57 (5) of the Education Act, 1944. In addition fifty-one educationally sub-normal children who left school during the year were referred to the After-Care Officer for Handicapped Children for supervision after leaving school. Thirty-six of these children had been attending special schools and fifteen had been attending special classes in ordinary schools.

DELICATE AND PHYSICALLY HANDICAPPED CHILDREN**Periton Mead Residential Open-Air School**

B. J. Boulton.

During each term of the year, accommodation has been found for 35 delicate children at this Minehead school. The summer term is now longer, the school being closed only for a short period during the summer months.

In "The Health of the School Child" for 1950-51 the report on open air schools was given front page news value in some daily newspapers because of the criticism of certain school buildings, and many other matters connected with their administration. The report contained much useful advice on all matters connected with open air schools, together with suggestions in the field of research.

Although not specially built as an open air school, Periton Mead is a large modern house in very attractive grounds and finely situated within easy reach both of the seashore and the countryside. The grounds include a large kitchen garden, a small formal garden, and ample lawn space for games, dancing, etc. Pigs, poultry and rabbits provide another near at hand interest and the older children take duty terms in looking after them. The classrooms, four dormitories, and dining room are bright and comfortable. The bedrooms contain six to ten beds. For most cases the period of stay is six months, and rarely more than twelve months.

As in the majority of open air schools the children are divisible into two main groups—those with debility following illness, and those with respiratory diseases. Of the latter, those suffering from asthma form the majority. Bronchitis, bronchiectasis, sinusitis and arrested tuberculosis cases make up the remainder.

It is quite true that results of treatment of asthmatic children are sometimes disappointing; those who have done well at the residential school often relapse when they return home, and it may seem that the time has been wasted inasmuch as it concerns the primary reason for their admission. A number of factors may act in causing this early relapse, e.g. (1) the mental strain of working up to the standard of the ordinary school after the more free and easy life of the open air school where the stimulus to study came mainly from activities outside the classroom. In such cases, an understanding teacher can do much to help the child. (2) The return to parental control and influence, and sometimes to domestic discord. (3) Change of climate and of living and sleeping conditions. Such children are not infrequently recommended for re-admission within a few weeks of discharge from the residential school at which they may have spent nine to twelve months. It is for the Medical Officer, after a survey of all the circumstances, to decide whether a second period of residential treatment is likely to give more lasting benefit to the asthmatic. There is, of course, a brighter side to the picture, as many asthmatic children appear to benefit permanently from six months stay at the residential school.

While children are ordinarily selected for admission on account of their health, it sometimes happens that the child's health suffers because of disharmony at home. Such children sometimes show symptoms of bed-wetting, and it is thought that this latter fact should not debar them from the benefit of treatment at the school. A conference of interested parties, including the headmaster of the residential school, and the adoption of a definite policy in this matter of the admission or exclusion of

bed-wetters would, I am sure, do much to reduce friction between departments of the School Health Service actively interested in helping these children.

At the end of 1952, structural alterations were commenced at Periton Mead, and it is hoped that extensions to the building in 1953 will allow another 25 children to receive treatment. The total accommodation will then give 60 places. At the same time it is proposed to appoint a resident nurse.

In our experience, the great majority of pupils, and the girls especially so, are very reluctant to leave this residential open air school when the time comes for them to return to Bristol.

South Bristol Day Open-Air School

(a) DELICATE CHILDREN.

During the year, full use has been made of this department of the school. As is the case in the residential school, respiratory diseases and debility are the main complaints for which treatment is recommended. Not infrequently children are transferred to the residential school after a trial period at the day school.

Although not an ideal site owing to its exposed position, it is large enough to allow ample space for play and gardening activities. The school itself is modern, although some older buildings are in use as dining room and for administrative purposes.

The medical officer makes a weekly visit to the school, and each child is examined at least once a term. A full-time nurse is employed. New cases attend to meet the headmaster and the medical officer a few days before they are admitted. Transport is by special bus.

The school has its own kitchens which provide three meals each day during the school week. There is a rest period of one hour following the midday meal. During the winter months the folding beds are set up in the main hall of the school, but during fine summer days the beds are moved out of doors. The majority of the children sleep, and those who do not are expected to remain quiet. For the rest of the comparatively short school day, life for the children is easy and leisurely. The period of stay at the school varies from one to two years in the majority of cases.

(b) PHYSICALLY HANDICAPPED CHILDREN.

Throughout the year full use has been made of all available places in this department of the school. At the end of 1952, preparations were in hand for the admission in January, 1953, of an additional 13 severely handicapped pupils. Most of these children, of ages ranging from five to twelve years, have previously been home-bound and receiving some amount of teaching from peripatetic teachers. Too handicapped physically to use the special school bus, it is intended to employ a house-to-school taxi service for the transport of the majority of these children. A male attendant is to be engaged to help in lifting and carrying the more helpless cases.

The children in this department of the school fall into four main groups: (1) spastic children, (2) post-poliomyelitis paralysis cases, (3) surgical tuberculosis cases, (4) the remainder including cases of hydrocephalus, spina bifida, muscular dystrophy, Friedreich's disease and

others. The majority of these children will remain at the school until they reach school leaving age.

The number of children on the registers of the school at the end of the year is as follows :—

	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Delicate children	34	25	59
Physically handicapped children	18	19	37

In addition the following children were being maintained at independent residential special schools at the end of the year :—

<i>DELICATE—</i>	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
St. Patrick's Open Air School, Hayling Island ...	—	1	1

PHYSICALLY HANDICAPPED—

Burton Hill House, Malmesbury	—	2	2
Hattondale, Wellingborough	1	—	1
Heritage Craft School, Sussex	1	—	1
Hinwick Hall, Wellingborough	1	—	1
St. Rose's R.C. School, Stroud	—	1	1
Halliwick Cripples' School, Winchmore Hill ...	—	1	1

Home and Hospital Teachers' Service

L. S. F. Bone.

The two peripatetic teachers on the staff have continued their work throughout the year of providing schooling for those children who, by reason of prolonged illness or severe physical handicap, are unable to attend school in the normal way. The children are of all ages from five to sixteen and, in general, one teacher is responsible for those of infant and junior school age while the other has charge of the senior age children. The standard of educational attainment varies from that of the child who has not attended school at all to that of the Grammar School boy or girl.

During the year under review approximately 1,700 individual visits were made to the homes of these children by the teachers concerned, the number of visits to each child being usually at least two per week. In many cases it has been possible to visit more frequently. Where senior age children are concerned it is generally possible for the teacher to leave work to be done between visits.

During the year 34 children were added to the "home tuition" list and 33 removed. Those removed are accounted for as follows :—

Admitted to ordinary or special schools... ..	19
Admitted to convalescent homes, residential schools, etc. ...	12
Over school-leaving age	1
Deceased	1

The total number of children on the "home tuition" list at 19th December, 1952, was 18. This does not include children being visited at the hospitals.

In addition to their work in the homes of physically handicapped children, the teachers also pay visits to the hospitals of the city where they give teaching to child patients of school age where this has been recommended by the hospital doctors. Normally, only those children who are regarded by the medical officers as long-term patients are visited by the teachers. At 19th December last the total number of such children was 7—4 in the Southmead Hospital, 2 in the Children's Hospital, and 1 in the Bristol Royal Infirmary.

The work under this scheme of providing some schooling for the sick and physically handicapped child depends largely upon the sustained enthusiasm of the teachers. Unstinted praise must be given to the two peripatetic teachers engaged in this work, not only for their enthusiasm but also for their conscientiousness and tact. The parents of the children can, and do contribute in large measure to the success of the scheme through their co-operation which, almost invariably, is wholeheartedly given.

DIABETIC CHILDREN

A.L.S.

There are relatively few diabetic children, and these mostly attend the Children's Hospital for observation and treatment. During the year four diabetic children, who would not otherwise have had a holiday, were sent for a fortnight to holiday camps for diabetic children under arrangements made by the Diabetic Association, with the approval of the Ministry of Education. At the end of the year two children were being maintained at residential special schools for diabetic children as follows :—

				<i>Boys</i>	<i>Girls</i>	<i>Total</i>
St. George's Hostel, Manchester	...	...	...	1	—	1
St. Monica's Hostel, Deal	...	...	...	—	1	1

EPILEPTIC CHILDREN

A.L.S.

Reference was made in my Annual Report for 1951 to the estimated number of epileptic children in Bristol. The general difficulty of placing epileptic children who are considered to need residential provision still continues, and a waiting time for a vacancy of up to two years is not uncommon. The problem is particularly acute in the case of epileptic E.S.N. children, though it is understood that the managers of one residential school are intending to make provision for this type of epileptic child.

At the end of the year six children were being maintained in residential special schools for epileptic children as follows :—

				<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Chalfont Epileptic Colony, Bucks.	...	...	...	—	1	1
Lingfield Epileptic Colony, Surrey	...	...	...	2	3	5

SPASTIC CHILDREN

School for Spastic Pupils

A.L.S.

In my report on spastic children in 1951 I mentioned the proposal to open a nursery unit for about fifteen young children at Claremont House. There was some delay due mainly to difficulty in obtaining suitable staff, but the school was eventually opened on 8th September, 1952. The Headmistress, Miss M. Ram, B.A., formerly of the Lord Mayor Treloar Hospital, Alton, was appointed, together with a full-time adult helper and a nursery assistant. Dr. Grace Woods, who attends the cerebral palsy ascertainment clinic at the Children's Hospital, visits the school periodically to examine the children. A full-time physiotherapist has been appointed to give physiotherapy treatment, and one of the

Authority's speech therapists attends on two sessions a week to give any necessary speech therapy. Fifteen children between three and eight years of age who had been recommended from the cerebral palsy ascertainment clinic as being suitable for this school were admitted. A report from Miss Ram on the work of the school to the end of the year follows.

Margaret Ram.

The school was opened on the 8th September, and the children were admitted a few at a time. By December we had fifteen (ten girls and five boys) ranging in age from two to seven, and in I.Q. from 64 to 112.

In addition to our special chairs, walking aids, etc., we have much of the equipment of an ordinary nursery school. The children were at once attracted by the sand trays and water trough. These and the sense-training toys absorbed the attention, for the first few weeks, of even the older children, who had probably missed the nursery stage of play.

By October it was possible to select a more advanced group to have a short classroom session each day. Two of these had already made a good beginning in reading with their home teachers. The others learned, through various games, to recognise letters and figures, and then they all progressed to simple reading and number apparatus. The three oldest girls have hands that are badly affected, so we use blocks for spelling and inset boards for the first "sums" and for word and picture matching. This group, now eight in number, has a daily story, learns short poems, and does a little nature study. Those of six years old and over also have individual reading lessons in the afternoon rest period. The teaching of writing will come later, and will, I believe, require a long period of preparatory exercises. The children with normal hand movements show signs of perceptual disturbances which are likely to make the copying of letter shapes extremely difficult.

Afternoon occupations include finger painting, modelling with clay and dough, and learning to use tricycles and pedal cars. At first each child played alone, but now those who can walk or ride organise fantasy games, and even the most helpless children ask to be placed beside chosen companions, and try to share their play.

Music time has been the most successful of our group activities. The children are quick to learn tunes, and the less handicapped show a good sense of rhythm. Singing and humming help breath control, and many can manage the hand and arm movements of simple action songs.

Training in social skills takes up much of our time. Some children are learning to feed themselves, and we are experimenting with different types of adapted spoons. We have low wash basins which some can use, and low toilets with rails to steady the children as they sit, and others to help them to a standing position. To help with dressing we have buttons, zips, hooks and eyes, lacing and bows on Montessori frames, and we hope soon to start a "dressing-up" box.

For such sheltered and dependent children, coming to school was a most disturbing, and to some, alarming experience. Now that they have settled down, and the adjustments have been made, I am sure we shall find that they have gained greatly in confidence and poise through having taken their first step out into the world.

Cerebral Palsy Assessment Clinic

Grace Woods.

Mention was made in the report for 1951 of the arrangements that were being made for the establishment at the Bristol Children's Hospital of a cerebral palsy assessment clinic. This clinic has been in operation during the whole of 1952 under the direction of Professor A. V. Neale, Dr. Beryl Corner, and Dr. A. L. Smallwood with a team consisting of a medical officer of the Local Authority, who also acts as clinical assistant at the Child Guidance Clinic of the L.E.A., a medical officer nominated by the professorial unit, and an educational psychologist of the Local Authority. The clinic meets weekly and the aim is to see every cerebral palsied child in the clinical area served by the Children's Hospital and assess the physical, educational and emotional needs.

The child is examined firstly by a paediatrician and arrangements made for physiotherapy, speech therapy, attention to eye or hearing defects, or for any necessary medication, and for continuous general medical supervision. Professor Neale has kindly allowed the team the use of two in-patient beds, and these have been found particularly useful in the case of small children who may need concentrated treatment for their poor nutritional state as well as their physical handicap, and also in the case of children suffering from "fits" where correct medication can only be ascertained by continuous supervision.

Secondly, the child is seen by an educational psychologist for an assessment of the child's intelligence. This may be particularly difficult where there is lack of control of arm movements and defective speech. In all cases the child has been given the benefit of the doubt and no child has been classed as ineducable without further tests and a period of observation.

Then the child is seen by the L.E.A. medical officer who obtains a picture of the family background, and its bearing on the child's emotional well-being. Her work has shown that many of these children are over-protected and restricted at home and are not being allowed to develop their potentialities on normal lines. The majority of these children are badly "spoilt" at home. Tensions often arise in the home due to the presence of a handicapped child which adversely affects one whose prior handicap is an abnormal tenseness of his muscles.

The first task of the clinic was to select fifteen children for the new "spastic" school at Claremont House, Henleaze. The children were to be educable and between the ages of 3 and 7 years, who were unfit or likely to be unfit because of their physical handicap to attend ordinary school. Exactly fifteen children fitted into this category and have entered the school.

To date 120 children have been seen at the clinic, and it appears that there are about twelve of these children who survive the birth handicap (or who later develop the handicap) each calendar year. A number of the mild cases attend ordinary schools and are making satisfactory progress. However, they should be under regular medical supervision to watch for any developing deformity, or other defect, and arrangements are made for them to attend a follow-up clinic at the Children's Hospital. Some of these children require regular physiotherapy and training in skills throughout their school life.

Quite a number of the younger ambulant cerebral-palsied children have been recommended for nursery schools. In cases where the child has been over-protected at home and has not been allowed to mix with other children, a period in a nursery school, before entering ordinary school, has helped the child to make a healthy adjustment. The secure atmosphere of a nursery school has also relieved the child's muscular tension; apart from the emotional benefit, there has been a marked physical improvement. In fact after a period in a nursery school, skills such as walking and climbing have improved without any other special treatment.

It is hoped that children in the younger age group will come under supervision as early as possible. If the condition is noted in infancy the mother can be taught to relax and assist the movements of the stiff limbs before permanent deformity develops. By frequent friendly interviews with the parents the atmosphere of tension and frustration in the family circle can be relieved, and the parents taught to handle the child in a firm, kindly but relaxed manner. The physiotherapist who sees the child with his mother regularly can help considerably. If the child from babyhood is nurtured in a secure environment with regular periods of treatment to encourage limb movements and the development of skills, he will learn to walk and talk earlier and be able to enjoy the society of other children, provided always that the intelligence is within normal limits.

Parents and persons training palsied children must realise that damage to the brain has taken place which has given rise to disordered muscular movements and is irreparable. The nerve impulses to the muscle must find another way round. With training very considerable muscle re-education and control of muscular movement can be achieved, but a cure is impossible. Treatment should not aim too high, and although in the past many of these children have suffered tragically from under-treatment, there is now a distinct danger of over-treatment. If the child is driven by over-enthusiastic parents and therapists, the muscle tension can increase and may militate against the development of smooth muscle action. If the child is reminded constantly of his handicap, feelings of frustration, inferiority and resentment arise, and he becomes difficult to handle and treat. Treatment is useless unless the child co-operates. Even too frequent praise for small achievements may not have a beneficial effect. "Spastic" children have complained that they are constantly "nagged."

The best results are obtained when the child moves in a secure happy environment, either at home or at school, and can meet and play with other children. Training in all the essential skills, such as feeding and dressing and walking, must take place regularly in an atmosphere of relaxation and confidence. The child must be coaxed to do all he can for himself, and if he expresses a healthy wish to feed himself or to try to walk, that moment is the optimum one to allow the child to try, and no obstacle should be put in the way of achievement.

Relaxation, passive movements, rhythm, water therapy, surgical appliances, walking aids all have a part to play in the achievement of these skills, but the home and school environment must be in harmony with the treatment. Thus, although such a school as Claremont with special facilities is needed for the more severely handicapped many palsied children have done surprisingly well in the ordinary school.

HOSPITAL SCHOOLS

At the end of the year the following children, who were patients in hospitals, were being given education under the recognised hospital school arrangements.

				<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Winford Hospital School, Somerset	...	...	...	24	25	49
Frenchay Hospital School, Bristol	...	...	...	14	13	27
Standish House Hospital School, Gloucestershire	...			1	1	2
Goldie Leigh Hospital School, London	...	...	...	—	1	1

HEART DISEASE AND RHEUMATISM

Cardio-Rheumatic Clinic

C. Bruce Perry.

There has been no change in the organisation or conduct of the Cardio-Rheumatic Clinic during the past year. Although more new cases were referred to the Clinic, the majority were found to have no organic heart disease and there has, in fact, been no significant increase in the incidence of heart disease.

Work is continuing on the value of cortisone in acute rheumatism and the notification scheme has been continued. The latter continues to provide valuable information on the incidence of acute rheumatism in different parts of the country. Experiments are planned for next year, using a new preparation of penicillin on the prevention of sore throats, which so frequently lead to relapses of acute rheumatism.

**Summary of cases attending CARDIO-RHEUMATIC CLINIC, 1952, including Primary, Secondary,
Grammar and Nursery Schools**

	No treatment or restriction	No treatment but restriction of games, etc.	Treatment and school	Treatment and exclude from school	Institutional treatment	TOTAL
NEW CASES						
Rheumatic Heart Disease	3	—	—	—	10	13
Chorea ...	1	—	—	—	2	3
No Organic Disease ...	43	—	1	—	—	44
Congenital Heart Disease	10	—	—	—	—	10
Various ...	4	—	—	—	8	12
	61	—	1	—	20	82
RE-EXAMINATIONS						
Rheumatic Heart Disease	343	28	2	3	6	382
Chorea ...	14	—	1	1	1	17
No Organic Disease ...	372	—	—	1	—	373
Congenital Heart Disease	91	13	—	2	—	106
Various ...	90	2	2	—	1	95
	910	43	5	7	8	973

No. of Individual children examined	...	546
No. of New cases for 1952	...	82
No. of Re-examinations	...	973
TOTAL NUMBER OF ATTENDANCES	...	1,055

INFECTIOUS DISEASES

A. L. S.

Infectious disease continues at its low rate amongst school children. This has been an off year for measles, and only 805 cases occurred. There is some slight evidence that the onset of measles is being delayed from the pre-school to the school years which is probably due to the smaller number of children per family, and the better sanitary conditions in which they live. Scarlet fever increased to 587 cases, compared with 327 in 1951, but there is no evidence of any increase in the severity of the individual case. Whooping cough in school children has been observed at about the same level as last year, and there was no case of Cerebro-Spinal Fever. Poliomyelitis has remained at a low level, only 10 cases having been observed amongst school children. The demand for places in the Authority's school for physically handicapped children who were severely handicapped by the epidemic of poliomyelitis in 1950 is now being felt, and is referred to in the section on handicapped children.

We are fortunate in having as hospital provision for these cases, Ham Green Hospital, whose Physician Superintendent, Dr. MacRae, continues to give very good collaboration with the school health service. It is pointed out that the work of this hospital has now become not so much associated with infectious disease as it was, but more and more represents the care of the acute medical cases.

During the year 394 patients of school age were admitted to the Infectious Disease Hospital at Ham Green, the average stay per patient being 21.8 days.

Immunisation against Diphtheria

It was not possible to have a campaign for immunisation against diphtheria as in previous years, but it is estimated that 75.5 per cent. of school children are now protected. Immunisation is given at regular sessions in the Authority's clinics, and emphasis is laid on pre-school immunisation, and booster dosing of the child before entry to school. For the last three years no case of diphtheria has occurred amongst the school population of the city.

1952

Number given full course of immunising injections	...	199
Number given a "booster" injection	... " ...	3,399

Diphtheria cases amongst school children, in the last four years :

1949	...	...	...	...	3
1950	...	...	...	...	0
1951	...	...	...	...	0
1952	...	...	...	...	0

Infections in Schools

A. L. S.

The policy of the School Medical Officer on the advice to be given to the Education Authority and the Heads of Schools about the occurrence of infectious diseases in schools is very often fraught with difficulty. Probably fewer subjects are so susceptible to public influence as that of infection when it arises amongst school children. The public has firmly in its mind a policy of quarantine, which it must be said is sedulously cultivated by many medical officers of health and by public pronouncements. Quarantine was first applied in England in 1663, according to Pepys and it did not prevent the Great Plague of London in 1665. The practice of quarantining ships against the introduction of infectious

disease to this country greatly interfered with foreign trade and was ineffective. In 1896 the practice lapsed in favour of the medical inspection of the crew and passengers, and the detention of the vessel only long enough for this purpose. The most effective quarantine that has been applied is that against rabies. The incubation period for this disease in man is two to six weeks, and in the dog about two to four weeks, though it may be longer. The quarantine period for imported animals is most strictly applied for six months.

The practice of quarantining involves the segregation of those who have been in contact with a particular disease, from the susceptible population, for a period in excess of the incubation period of the disease so that any secondary cases would be likely to develop in isolation. This involves knowing the length of the incubation period of all infectious diseases. In the case of some of them it is fairly easy. For example, the incubation period of measles is consistently thirteen to fifteen days, and that of diphtheria two to five days, so that theoretically if one isolated contacts of cases of measles for sixteen days, and of diphtheria for seven days, only a very small proportion of the secondary cases would arise after their period of quarantine. In the case of some diseases, however, such as poliomyelitis and infective hepatitis, the incubation period is not known with any certainty, and in the second case the incubation period may be so long that quarantine would have to be exercised for several weeks. Again, one has to think of the possibility of the spread of infection from the primary cases. Some organisms reproduce themselves in the nasopharynx from which they may spread to other parts of the body and from which they may be expelled in the act of sneezing, coughing, etc. Other organisms seem to multiply in the central nervous system, *e.g.* chicken pox and mumps. The difficulty, which is slowly being resolved, is that, in order to recognise some diseases with certainty, it is necessary to recover the organisms. While this is easy with scarlet fever and diphtheria, the recovery and recognition of such organisms as those of poliomyelitis, chicken pox, measles, if possible, is very complicated and difficult. The period of communicability with some diseases can actually be started before the disease is manifest, *e.g.* mumps organisms have been recovered two or three days before the characteristic swelling. In the case of measles the infection may be transmitted three or four days before the rash, and in the case of whooping cough up to seven days before the characteristic whoop. A further complication is that with the increased recognition of the virus diseases in recent years it is now believed that strains of viruses may work together, and that it may be possible for organisms to produce different effects in this way.

Within recent years a great change has come over the character of epidemics. Scarlet fever is no longer the disease it was. It has shown a cycle of virulence of four and a half times since the end of the seventeenth century, and although it may again become a virulent disease it shows no sign yet of doing so. In the Balkans an organism of great toxicity and killing power still exists alongside the prevailing mild type of streptococcus. Measles and whooping cough have declined in severity, but not in their incidence, since 1850. The organisms of typhoid and smallpox are two of the few which seem to have maintained their virulence over the passage of years, but these are now exotics and need not concern our general policy about contacts in schools. Although we think of infections occurring at school as the common ones of measles, whooping cough, chicken pox, etc. it is doubtful if we are being strictly logical in so doing and our

ideas may well change in the future. It might be that we should include among the diseases for which we recommend notice to be taken such infections as herpes zoster, infective myalgia, infective hepatitis, influenza, etc., and it may be, in future, that we shall have to worry more about diseases which have their normal habitat amongst animals. We know at the present time of the reservoir of ringworm that occurs in some districts among the dog and cat population. Canicola fever has been recognised in Bristol and it may well be that leptospirosis may be further recognised as the cause of unknown pyrexia. It is said that up to forty per cent of dogs may be infected as potential carriers.

Since the commencement of the school health service three memoranda have been issued by the Board of Education on closure of and exclusion from school. In 1909 school closure was recommended if there was sickness in a teacher's family, and that it should not be necessary to close the school if the power to exclude the individual was used to the best advantage. Circular 596 of the Board of Education states that "the School Medical Officer should so organise the machinery that both he and the sanitary authority shall receive immediate information of any such occurrence (of infectious disease) whether the disease is notifiable or not." These words seem as far off realization as ever with the shortage of staff. The memorandum also recommended that teachers should be instructed in the symptoms of most of the chief infectious diseases. At that time exclusion of contacts of scarlet fever was for two weeks ("This disease spreads slowly from child to child"), of measles twenty-one days (infants), whooping cough six weeks, and chicken-pox three weeks. The 1927 memorandum recommended that only in quite exceptional circumstances was it necessary to close a school in the interest of public health. Scarlet fever contacts were to be excluded for one week if they had not had the disease; measles for twenty-one days; chicken-pox and whooping cough cases as before, and poliomyelitis was mentioned for the first time with the recommendation to exclude contacts for three weeks.

In the latest memorandum of 1942, the Addendum on Exclusion, it was said "most medical authorities have grave doubts whether the course of epidemics or the number of cases is influenced to any appreciable extent by the exclusion of contacts, while the immense loss of school time which this procedure involves is realised by all. Nor does it seem that this sacrifice of education brings any corresponding advantage to the public health." The code of rules issued by the Medical Officer of Schools Association repeated in 1940 an Appendix E which first appeared in the 1928 edition of the same publication. It states similar ideas about residential schools, that "statistics for the last thirty years taken from some of these schools (bigger public schools) seem to show that the result, *i.e.* of isolation and quarantine, has been at best a diminution in the number of epidemics only, and no diminution in the number of cases." The latest official advice is in the booklet of the American Public Health Association "Control of Communicable Diseases, 1945." This advice includes abandoning quarantine for chicken-pox, streptococcal infections, poliomyelitis and measles in urban districts at epidemic times. In general, observation and expert diagnosis of school children should replace automatic isolation and quarantine procedures. As Chapin said in 1910, "in some communities all restrictions have been removed from certain diseases as experience has shown that the standard measures were mere irritants, could not be enforced, and did not produce effective control. There is no doubt that the next few years will show a greater liberalisation

of isolation and quarantine practice. Such liberalisation is long overdue." These sentiments have been repeated by Paul (1952) who says " A generation ago it was common to exclude contacts automatically for infectious disease for a period slightly longer than their incubation period, but very few Authorities carry out this procedure in full at the present time. It is, however, still practised to a considerable extent with certain public and private schools where medical supervision is strict and where complete isolation is possible, but in ordinary life in an urban district, rigid exclusion is neither desirable nor necessary. Many Authorities, however, have completely abandoned the automatic exclusion of contacts from schools on the grounds that complete isolation of contacts is impossible in urban life, and the child is safer at school than at home."

The adoption of these principles which are fairly well accepted by the medical profession will need a long and gentle introduction to the general public whose traditional ideas on the control of infection will die very hard. The miasmatic theory of infectious disease amongst the general population, and ideas such as the infectiousness of peeling skin still prevail. However, a start must be made, and it has been our practice in this Authority for some years now to reject the closure of schools or classes as administrative measures to control infectious disease. No case of diphtheria has occurred in this town for the last four years, so that this scourge has now disappeared. Effort is still maintained however, to keep the immune child population at a high level. Streptococcal infections are a particular worry at various times. Our practice is, whenever more than a few cases occur at any one school, to arrange for the nurse to visit the school to make an inspection, with the idea of excluding children who might have pathological conditions of nose, throat, ears or skin. Usually this is sufficient to make a reduction in the numbers of streptococcal infections, and very rarely is a second visit necessary. Fumigation is still done of homes and of schools on request, although this is at most of doubtful value. Measles and whooping cough are less of a problem in an urban population like Bristol, where most of the children have had the disease before admittance to school, and it is proposed to relax the present isolation procedures for contacts of these diseases amongst school children who have not had the disease. Chicken-pox is still troublesome from time to time; though one of the most infectious diseases it is easily recognisable in these days of stripping for P.T. and relatively scanty ordinary clothing. Our policy is to relax quarantine restrictions so far as we can and as often as public opinion will allow.

Medical Examinations of Entrants to the Teaching Profession

In accordance with the arrangements outlined in Ministry of Education Circular 249, the medical examination of candidates applying for entry to training colleges and entrants to the teaching profession, were from 1st April, 1952, carried out by the Medical Officers of the Local Authority. During the year, 74 candidates resident in Bristol were examined in connection with admission to training colleges and also 11 entrants to the teaching profession were examined for some exceptional reason.

MEDICAL INSPECTION

A. L. S.

A complete medical inspection was made during the year of 16,097 children attending the Committee's primary and secondary schools. The tables relating to these examinations will be found in the statistical section at the end of this Report.

Co-operation of Parents

The number of parents present at primary and secondary school medical inspections was as follows :—

				<i>No. Examined</i>	<i>Parents Present</i>	<i>Per cent.</i>
Entrants	...	...	...	6,896	5,508	79·87
Second Age Group	...	...	...	4,814	2,767	57·50
Third Age Group	...	...	...	4,387	1,150	26·20
Total				16,097	9,425	58·55

MILK AND MEALS IN SCHOOL

T. B. Hetherington.

At the end of the year 2,320 children were receiving free dinners, 136 on part payment and 19,420 at the normal charge for dinners (7d. per dinner in Primary and Secondary Schools, 6d. in Nursery and Day Special Schools). Sixty-three kitchens were supplying meals at this time to 199 canteens.

From a return taken in October, 1952, 49,491 children were taking milk (one-third pint daily in Primary, Secondary and Day Special Schools, two-thirds pint daily in Nursery Schools and the Open Air School), a percentage of 86·44 of the total attendance. The percentage of children taking dinners was then 37·46.

The income scale for the award of free dinners was revised in September, 1952.

Facilities for the distribution of dinners during school holidays were continued up to and including the summer holiday but afterwards, for an experimental period, the facilities were discontinued and the matter is being watched carefully. So far no cases of hardship have been reported.

The percentage of meals taken in self-contained kitchen dining-rooms is at present 41·7% against 32·7% in those schools receiving the transported meal. Of the total served approximately half of the meals are cooked and served on the premises and half cooked in central kitchens and transported to canteens.

During the year four new kitchens and six dining premises were opened in new school buildings, and a new type of dining furniture was supplied in those schools. The new table tops are of a non-absorbent material, easily cleaned and therefore more hygienic.

Many kitchens and canteens have been redecorated during the year and a full programme is planned for the near future. New washable wall surfaces are being tested. Plans for improved ventilation of existing kitchens are also under way.

A regular issue of protective clothing is now being made and the supply of head covering is being extended to all canteen as well as kitchen staff.

Food and overheads costs have increased over the year. A high percentage of the food costs is absorbed by the purchase of the special allowance of rationed foods—a minimum of 3½d. per day is spent in this way—thus, despite the difficulties of budgeting the content of the meal is being maintained.

Milk in Schools

A. L. S.

It will be remembered that in the report for 1951 I noted that girls in secondary schools apparently consumed less milk than boys at a similar age, and that the percentage of girls taking milk in secondary girls' schools had shown a decline from 77% in February, 1947, to 54% in 1951. This process now appears to have been arrested, and the percentage of the total number of girls taking milk taken on one day in October, 1952, was 61%. This is probably, but not certainly, a real rise as compared with the figure taken on a similar day in the previous year. Some points are of interest in examining the percentage of girls taking milk at different schools. The highest percentage is 85%, and the lowest 34%, and both these occur in secondary modern girls' schools. The grammar schools vary between 27% and 87%. Although caution has to be exercised in drawing conclusions from returns relating to one particular day, nevertheless those schools which show small percentages of girls taking milk consistently do so whenever the figures are taken. There seems no other explanation of the variance in the secondary girls' schools. With the co-operation of the Heads of three of the secondary girls' schools an attempt was made to co-relate the percentage of children taking milk with the intelligence levels. In none of the schools was there found to be any co-relation existing.

F. J. Redstone.

The milk supplied to school children in Bristol during the year was frequently checked as to efficiency of heat treatment and standard of cleanliness. The results of 199 samples were very satisfactory as none failed the phosphatase or methylene blue tests. In addition, continuous control is, of course, exercised at dairy plants where school milk is processed and, in this way, quality and purity is adequately safeguarded.

Attention was, however, again focused upon the dirty condition of milk bottles returned to dairies from certain schools. This matter was discussed by the Medical Officer of Health, with the Chief Education Officer, who circularised schools pointing out that misuse of milk bottles must be avoided at all times.

It has been previously mentioned that many of the older schools lack facilities for the hygienic handling of milk supplies and it must be said that in this connection there is room for improvement.

School Kitchens

F. J. Redstone.

Considerable attention was given to the inspection of food supplies to the school meals service. Samples from a wide variety of foods were collected and submitted to the public analyst and, apart from a few minor matters, the 195 samples were reported as satisfactory and in compliance with the various food standards.

In addition, the meat supplies to school kitchens have been regularly inspected and, with one exception, were found to be in accordance with contract quality.

In general, it can be said that the milk and food supplied to schools is of good quality and it is noticeable that there is a progressive improvement in hygienic standards as new kitchens are built and others improved. As an example of the close co-operation which exists between the Health and Education Departments, it is pleasing to record that when kitchen apparatus is being replaced, the advice of the Senior Food Inspector has been sought as to the best type of equipment available.

MINOR AILMENTS

A. L. S.

The number of children dealt with at the minor ailment clinics continues generally at the same level as in previous years. It will be observed from the list of attendances given below that the peak year was 1948, and that in 1952 the decline in the number of attendances has apparently been halted. This is due to an increase in the total attendance in the first quarter of the year compared with 1951, because the other three quarters showed a decline. If the figures are broken down into districts (not reproduced here), it is apparent that the shift of population due to re-housing is causing problems of provision on the outlying estates, and that the demand on the service in the more central clinics is diminishing. There are many critics of the service who would deflect most of the children to the general practitioner, and the clinic doctors and the nurses in their recommendations to the parent about treatment always mention this possibility. However, it is convenient for the child to be sent by his mother to the clinic in school time (sometimes too convenient), and much remains to be done before the parents accept their full share of responsibility for the care of minor ailments. It may be that the decline in the demand for the service is due to the decline in the virulence of the minor skin organism and better living conditions generally. It is tempting to think that better washing facilities in the schools, and a livelier appreciation of health education, has had some effect. This is one side of the school health service in which others could profitably take a part. The School Medical Officer and the staff of the school health service have too little time to spend on other functions, and would welcome some relief from the duty of doing work which is rightfully that of the general practitioner.

Minor Ailment Clinics Attendances

	<i>School Population</i>	<i>First Quarter</i>	<i>Second Quarter</i>	<i>Third Quarter</i>	<i>Fourth Quarter</i>	<i>TOTAL</i>
1945 ...	46,500	42,161	42,289	34,155	46,892	165,497
1946 ...	47,886	41,400	42,845	37,269	50,044	171,558
1947 ...	48,870	35,093	37,483	33,779	48,421	154,776
		(bad weather)				
1948 ...	52,561	48,475	54,852	42,942	45,030	191,299
1949 ...	54,107	50,052	45,383	35,804	50,596	181,835
1950 ...	55,398	50,295	40,387	32,073	40,425	163,178
1951 ...	56,825	34,833	47,690	32,814	45,344	160,681
		(Influenza epidemic)				
1952 ...	59,855	42,084	46,363	30,825	42,572	161,844

			<i>IMPETIGO No. of School Cases</i>	<i>SCABIES No. of School Cases</i>
1940	...	...	3,490	485
1941	...	...	2,091	2,062
1942	...	...	2,413	3,927
1943	...	...	1,881	3,197
1944	...	...	1,798	2,321
1945	...	...	1,416	1,520
1946	...	...	1,381	1,312
1947	...	...	1,043	789
1948	...	...	681	462
1949	...	...	544	224
1950	...	...	470	211
1951	...	...	431	142
1952	...	...	488	120

RingwormR. P. Warin
A. M. Fraser.

It is a pleasure to be able to report a marked reduction in the number of Bristol school children attending the separate clinic for scalp ringworm, which continues to be held each Friday afternoon in the United Bristol Hospital. This reduction applies both to the number of new cases reported and to the length of time which patients have to remain under treatment.

There were 48 new cases of ringworm amongst Bristol school children throughout the year ; which is to be compared with 131 new cases in 1951 and 157 in 1950.

Two types of ringworm of the scalp are common. One type, *Microsporon Audouini*, infects only human beings and spreads from child to child. The other, *Microsporon Canis*, is an infection usually acquired from cats and dogs. Of the 48 new cases this year, 16 were proved to be due to *M. Audouini* and 30 to *M. Canis*. Thus, rather more than one half of the cases were due to the latter type. This is a contrast to the state in 1951, when only one-sixth of the infection was due to *M. Canis*. The absolute increase was only eight ; the high proportion being due to the frankly unexpected rapid fall in *M. Audouini* infection. This reduction seems too great to be ascribed solely to the measures adopted to examine contacts and to prevent spread from cases already diagnosed. It suggests that there has been a diminution in the virulence of this ringworm organism.

The increase in *M. Canis* infection is regrettable but it should be noted that it yields more readily to local treatment than the other type and, very rarely, calls for the application of X-rays to bring about complete removal of hair. Such a treatment, though efficient, is apt to be mentally distressing to parents and often to children.

The need to keep infected children away from school, even for the shorter periods of two or three months which are not now unusual, has been called in question by a dermatologist working in a neighbouring region. He writes (B.M.J. 7/3/53) that he allows children with *M. Canis* infection to attend school provided that a linen covering or cap is worn, that the ointment provided is used, and that there is a weekly attendance at the ringworm clinic.

Whether such a scheme should be put forward for adoption in Bristol was considered, but it was decided not to do so for the time being at any rate. The present cases attend schools scattered over the city and it would seem unwise to risk infecting other children, most of whom could not have been in contact with any particular case before its discovery. There is also the difficulty of ensuring a weekly attendance of parent and child in face of the expense and time involved.

The rule of non-attendance at school was actually relaxed in two instances, one for examination purposes and the other, a technical school pupil whose infection was minimal.

In these minimal infections, one way of hastening the return of the child to school is to extract the infected hairs, singly, by hand. A word of praise for doing this work in suitable cases is due to the nurses attached to the Ringworm Clinic. It involves working in a dark room under ultra-violet light, and is trying both to eyes and to hand.

Body Ringworm

During 1952 194 cases of this disease amongst school children were treated at the clinics. This compares with 281 in 1951.

The William Budd Health Centre

A. L. S.

The opening of the William Budd Health Centre on the Nover's estate by the Minister of Health (see Wofinden, R.C., and Parry, R.H., *Lancet*, 28th June, 1952, page 1297) effected considerably the arrangements for the school health service in that area. Since 8th October, 1951, a clinic has been held in rooms on the premises of Connaught Road School, which has a total number of 2,300 children on the registers, and this clinic has been found of very great value in treating the children of this large school of five departments. Each morning a nursing sister, with the assistance of a clinic assistant and a clinic helper, has been in attendance to give minor ailment treatment, and this arrangement resulted in a very great saving of school time to the children. It is true that many of the reasons for the children's attendance at the clinic were of a somewhat trivial nature, but it can be said that many were also of a type which could later prove serious unless dealt with in time. This is therefore true preventive medicine. Some people might feel that many of these minor conditions are those which parents themselves ought to be encouraged to care for, but that parents in recent years have been encouraged to take advantage of the facilities provided, and in many cases the parents themselves are known to be so unmindful of their duties as to neglect to give proper treatment.

With the opening of the William Budd Health Centre, however, it was felt that here was an opportunity to refer many of the children to the general practitioners on whose lists they had been taken. The actual number of children on the lists of medical practitioners who have agreed to co-operate in the joint arrangements at the centre, as a proportion of the total number of children living on the estate, was not known, but it was thought to be in the region of 40%. Since the end of the year, therefore, children who are the responsibility of the doctors attending the William Budd Health Centre are being referred to them for advice and treatment in school time. This involves knowing the name of the doctor for each child concerned. Although many children know of their own doctors, many, particularly in the Infants' Department, do not and this difficulty will be overcome in time by recording the name of the practitioner on the subsidiary medical card which is kept in the school. It is known, of course, that some children have not yet been taken on the lists of general practitioners, and these and also the children whose doctors do not attend the William Budd Health Centre will continue to be treated at the sessions which will continue to be held at Connaught Road Clinic. The minor ailment treatment inspection sessions conducted by the Local Authority Medical Officer which were held twice weekly at the Connaught Road School Clinic were transferred to the William Budd Health Centre when the centre opened. It is hoped that his presence there will be of considerable assistance to the general practitioners at the centre in matters connected with the school health service. Children whose treatment is prescribed by their own doctors at the William Budd Health Centre will be treated as far as possible by the staff of the centre after school hours, thus saving visits in school time. In the case of casualties that arise to children, whether or not they are on the lists of doctors at the centre, emergency treatment will be given and the child thereafter referred to his own doctor for further advice. The arrangements for a group of private practitioners to work under one roof will be very helpful to the school welfare officers when enquiring as to the possible cause of a child's absence from school, and together with the goodwill of the teachers of the neighbouring schools and the sister and nursing staff of the health centre

which is known to exist, we are looking forward to the prosecution of a very interesting experiment in school health service.

NURSES' INSPECTIONS

A.L.S.

The number of visits to schools made by the nursing staff during the year for the purpose of examining children at survey visits and cleanliness inspections was 3,457 compared with 3,202 in 1951, 168,786 examinations (including 1,325 re-examinations) having been made. The number of individual children found with verminous conditions during the year was 2,674. The treatment and cleansing of children found to have varying degrees of verminous conditions or infestation was continued in all the clinics during the year, 1,135 individual children being treated and 6,262 attendances being made. Treatment by means of a D.D.T. Emulsion was used throughout the year.

The close co-operation between the nurses and the Heads of schools was maintained during the year and the valuable assistance given by teachers and the staff of the Child Welfare Department in dealing with this problem is greatly appreciated.

Home Visiting.

During the year the number of visits for the purpose of "following up" defects, etc., was 3,121. Other visits in regard to uncleanness, etc., totalled 1,836.

INFESTATION

A. L. S.

Although the total number of children who require attention because of verminous head seems to fall only slightly year by year, it must be remembered that the school population has been rising steadily over the past few years. Expressed as a percentage the number of individual school children known to be infected fell steadily from 9.4% in 1945 to 4.5% in 1952. This probably indicates a real diminution in the amount of infestation, and the problem now seems to concern the small core of chronically infested families. Modern legislation does not easily allow the possibility of prosecution in these cases, but constant watch is kept on this point as it is realised that one successful example might result in a great improvement in the district. No prosecution has, in fact, been undertaken under Section 54 of the 1944 Education Act since its inception.

The figures for the years 1945 to 1952 with the percentages are given below :—

No. of individual pupils found to be infested with vermin.

<i>Year</i>	<i>No.</i>	<i>School population</i>	<i>%</i>
1945	4,355	46,500	9.4
1946	4,903	47,886	10.2
1947	4,320	48,870	8.8
1948	3,399	52,561	6.5
1949	3,659	54,107	6.7
1950	3,027	55,398	5.5
1951	3,016	56,825	5.3
1952	2,674	59,855	4.5

NURSERY SCHOOLS AND CLASSES

A. L. S.

At the end of the year there were 12 nursery schools maintained by the Education Committee with accommodation for 890 children between the ages of 2 and 5 years. In addition, there were 18 infants' schools with nursery or baby classes accommodating in all 300 children between the

ages of 3 and 5 years. All these nursery schools and classes remained full with long waiting lists.

Details of medical inspections in nursery schools and classes during the year are as follows :

					Periodic Exams	Re-exams
Nursery Schools	...	...	...	...	542	1,489
Nursery Classes	...	...	...	...	457	849
Number of Special Inspections and Re-Inspections	...	...	...	...	...	342

Classification of Nutrition

	Number of children inspected	"A" Good		"B" Fair		"C" Poor	
		No.	%	No.	%	No.	%
Nursery Schools	542	219	40.41	262	48.34	61	11.25
Nursery Classes	457	246	53.83	206	45.08	5	1.09

Treatment of Minor Ailments

No. of defects treated in clinics and at schools and classes	...	...	4,479
--	-----	-----	-------

Treatment of Defective Vision and Squint

Errors of Refraction (including squint)	...	...	...	25
No. of pupils for whom spectacles were prescribed	...	...	...	11

Dental Inspection and Treatment

No. of pupils inspected by the Dentist—Periodic Inspections	...	940
—Special Inspections	...	53
TOTAL	...	993

No. found to require treatment	...	...	...	...	491
No. actually treated	...	...	...	...	288
Attendances for treatment	...	...	...	...	314
Extractions of temporary teeth	...	...	...	...	257
Fillings of temporary teeth	...	...	...	...	16
Administrations of general anaesthetics for extractions	...	...	...	...	146
Other operations on temporary teeth	...	...	...	...	378

Medical Treatment of the Pre-School Child

The following cases of children under school age were treated at the various clinics during the year :

Eye Diseases	...	...	...	...	62
Ear Diseases	...	...	...	...	148
Skin Diseases	...	...	...	...	241
Minor Ailments	...	...	...	...	107
Aural Surgeon's cases	...	...	...	...	75
Eye Specialist's cases	...	...	...	...	103
Heart Specialist's cases	...	...	...	...	4
Orthopaedic Specialist's cases	...	...	...	...	154
Chiropody Clinic cases	...	...	...	...	—
Skin Consultant's cases	...	...	...	...	25
Enuretic Clinic cases	...	...	...	...	10
T.B. Contact cases	...	...	...	...	220
Various	...	...	...	...	553
					1,702

ORTHOPAEDIC AND POSTURAL DEFECTS

A. L. S.

The consultant orthopaedic sessions continued to be held at the Central Health Clinic on two mornings per week throughout the year by Mr. K. H. Pridie and Mr. D. M. Jones. The nature of the work has not changed since last year, and there continues to be a high proportion of the cases which are of a minor orthopaedic character. This is undoubtedly due to the success of the preventive aspect of the work, since some of the children with these disorders might well have had greater disability in later life if the defects had not been treated early. Increased attention to the cerebral palsy children has resulted in many of these cases being dealt with elsewhere, but some of these children still have their treatment arranged under the direction of the orthopaedic surgeons by the Authority's physiotherapists, who continue to do excellent work at the Central Health Clinic. The poliomyelitis epidemic of 1950 has meant an increase in the number of children requiring physiotherapeutic care. Fortunately this epidemic has not been repeated. A special concern is the occasional child with congenital dislocation of the hip, or poor hip sockets which come to light after the child has commenced walking. Often these children are doomed to a later life of pain and disability when they could have been detected at a very early age with, in many cases, the hope of very much improved function. Tuberculosis of bones and joints is a cause of orthopaedic disability which we hope will disappear entirely with the greater consumption of pasteurised milk, although too much inference should not be drawn from small numbers. It is noted that only one case was seen during the year for this condition, the lowest that has been recorded to date. The details of the children seen during the year are as follows :—

	<i>Age five years and over</i>	<i>Age under five years</i>
Paralysis (a) Flaccid	47	25
(b) Spastic	49	7
Tuberculosis of Bones and Joints ...	1	—
Congenital abnormalities of Bones and Joints	43	8
Amputations	10	1
Rickets	—	3
Genu Valgum	24	26
Various (flat foot, spinal curvature, etc.)	567	89
	741	159

PHYSICAL EDUCATION

J. McA. Milne.

The extension of the less formal approach to the teaching of physical education has resulted in the continued improvement in the standard of work generally and further stimulated the interest shown by the children. Further climbing and other large apparatus has been supplied to more Primary Schools and this has contributed largely to the improved standard, as more scope for movement and activity is thus provided. A number of new school halls have also been opened during the year and as these have splinter proof floors more children have been able to participate in bare foot work and this has overcome the difficulty of unsuitable footwear in many cases.

In the Secondary Schools work is carried on with the more traditional types of physical education apparatus and the scope of activities broadens to include dancing, swimming, games, athletics and, in some schools,

camping. The major games are taught on playing fields when each child has a sixty minute lesson every week. Swimming is becoming more popular year by year and is carried on Winter and Summer, the demand from Schools in the Summer exceeding the facilities available. The following figures give an indication of the position reached in Swimming by children in the Secondary Modern Schools in the city.

<i>No. on Roll</i>	<i>Life Saving Awards</i>	<i>No. of School leavers unable to swim</i>
12,880	2,069	236

In October the English Schools' Swimming Association's National Championships were held in Bristol and were an unqualified success from every angle ; approximately 400 children spent a most enjoyable time as guests of Bristol School children.

The Playing Field acreage continues to grow with the building of new Primary Schools each of which has a playing area attached, and this enables children of the Primary age to take a more active part in games and outdoor activities. Plans have been made for the construction of a cinder running track on one of the playing fields and it is anticipated that this, the first cinder track in Bristol, will be completed in 1953.

A number of Teachers' Refresher Courses have been held during the year. These have included Courses for Primary School teachers both men and women, Secondary School women teachers not only in Physical Education, but also National Dancing and Netball, and Secondary School men's Courses in Cricket and Athletics.

There have again been many Physical Training Association meetings at which Dr. Smallwood has been present and the Bristol Film on "Movement Education" has been shown. This film has also been shown, as in the past three years, to the Education Students at Bristol University.

Parties of students from many training colleges including Physical Education Colleges and Bristol University have visited the schools.

Miss E. Taylor, the All England Women's Hockey Association Coach visited Bristol from 2nd to 5th December and gave much valuable coaching in a number of the girls' schools and two girls were entered for the Junior County Hockey Trials.

Two Rounders Tournaments were held in which twenty-eight teams took part, one in the South of the city and one in the West. Twenty-eight teams also took part in a Netball Tournament held during the Spring Term.

Only a small number of Secondary Modern Schools include Camping as part of the curriculum, but certain Primary Schools have shown interest, and a Camping Course for Bristol teachers is to be organised by the Ministry of Education in May 1953.

The voluntary organisations continue to be very active in the field of major games, particularly Swimming, Association Football, Cricket, Rugby Football and Athletics, and opportunities for taking part are given to all children who show ability in any branch of Physical Education.

PSYCHOLOGICAL SERVICE

R. V. Saunders.

During 1952 two new psychologists, Miss Regan, and Mrs. Vant, joined our team, to replace Miss Hepburn who left us to get married, and Mr. Good who is now pioneering a psychological service in Northern Rhodesia

In addition to continuing with the scheme of allocating psychologists to specific groups of schools, each psychologist has been given a sphere of his or her own. Mrs. Vant works in close contact with the Children's Department, Miss Regan is consultant for Nursery Schools, Mr. Beedell continued his work at Claremont and also at the Hearing Assessment Clinic, while I have co-operated in the work of the Cerebral Palsy Assessment Clinic.

In June a survey was carried out in the special classes for educationally subnormal children at Novers Junior and Connaught Road Senior Schools. The findings showed that in these classes the average gains in reading age exceeded the average gains not only in mental age but also in physical age, a striking result. In arithmetic, the average gains exceeded the average gains in mental age and were almost as great as the gains in physical age, another gratifying result. In general terms the findings showed that these small classes are doing valuable service in dealing with the problem of educational subnormality. The most important requirements appear to be (a) the reduction in the size of the class, (b) the personality of the teacher irrespective of his or her experience, (c) the amount of support which the teacher has from the Head of the school and from his or her teaching colleagues.

It is felt necessary to reiterate the warning in last year's report that the special educational needs revealed by improved diagnostic machinery must not be ignored. There is still a large discrepancy between the number of children found to need special educational treatment, and the number of places available for them in special schools or classes. The Southmead area, urgently, and, rather less so, the Bedminster area, appear to the psychologists to be in need of some special provision.

The waiting lists of the psychologists continue to be longer than they would wish, partly due to the tendency on the part of some schools to over-refer, although this is to some extent balanced by under-referrals from others. It is our hope by continued contact with the same group of schools to adjust these discrepancies in the system.

During the year, in addition to our work in the Child Guidance Clinic the psychologists individually tested 886 children. Each of us has given several lectures to Parent-Teacher Associations, and some of us have appeared on "Brains Trusts."

We take this opportunity to acknowledge gratefully the assistance and co-operation we have had in so many schools from so many public service departments.

SCHOOL PREMISES

A. L. S.

The following new schools were opened during the year to provide for the needs of the new housing estates on the outskirts of the city. Separate medical rooms are not now provided in the case of the smaller schools with accommodation of 280 places or below.

<i>Accommodation</i>			
Avon Primary ...	...	280	Opened April, 1952
Weston Park J. M. ...	...	480	.. September, 1952
Weston Park Infants ...	...	320	.. January, 1952
Blaise J. M. ...	...	320	.. September, 1952
Blaise Infants ...	...	240	.. April, 1952
Oldbury Court Infants ...	...	240	.. April, 1952
Glenfrome Infants ...	...	280	.. April, 1952
Henleaze Junior Mixed ...	...	320	.. September, 1952
Sea Mills Infants ...	...	240	.. December, 1952

SPECIAL SANITARY PROVISION FOR GIRLS.

A. L. S.

This problem has been recently examined and it is useful to summarise the present position in Bristol. The Chief Medical Officer of the Ministry in "The Health of the School Child," 1950-1951, page 17, described the general unsatisfactory position in the country. In 1947 the Bristol Education Committee resolved to supply two sanicans to each secondary modern girls' school, and a suitable fastening device on all lavatory doors where these did not already exist. By May of the same year the sanicans were delivered. All Heads of girls' schools were reminded of the facilities available for obtaining sanicans and for having fastenings to doors in June, 1948. In March, 1950, a Ministry of Education circular was received on this matter, and the health visitors were asked to report on all schools where the facilities were not entirely satisfactory. In May, 1951, a Euk electric incinerator was installed at St. Anne's Park Girls' School. In September, 1951, this was transferred to Portway Girls' School, and a Jackson electric incinerator was provided at St. Anne's Park. These have proved entirely satisfactory in use.

Our experience is that the girls are sometimes a little slow to take advantage of these new facilities, but there is no doubt that once the habit has become established they will be fully utilised. Arrangements have been made for small stocks of towels to be kept at senior girls' schools for emergency use. There is provision in the financial estimates of the local Education Authority for 1953-54 for extending the provision of incinerators in senior girls' schools. Generally speaking therefore, the problem seems to be dealt with adequately in Bristol.

SPEECH CLINICS**Southern Area**

Kathleen Coleman.

Work in the Southern Area has continued steadily throughout the year. The outstanding feature has been the development of a method of presentation of the treatment of stammering, which is yielding results far in advance of any previously obtained. Improvement in speech is noticeable in a few days and when treatment is persevered with, speech becomes controllable in a few weeks. When speech no longer troubles him, the child is sometimes inclined to diminish his efforts and this is a drawback because treatment must be continued over a long period to establish the improvement. Results obtained over the last eighteen months give reason to say that if any child who stammers follows this method, his stammer will improve and if he perseveres, it will become negligible. These results have been obtained in every instance where the method has been followed and is the only one now being used in this clinic.

Stammering is the child's reaction to difficulty and the aim is, therefore, not to cure the stammer, but to teach the stammerer to accept, understand and be able to manage his stammer, so that it is not a hindrance to him in his life.

The general principle of relaxation and slow easy speaking does not vary from that generally used, but with deep relaxation the child learns to relax himself, instead of being relaxed by the therapist and does so sitting in an upright chair, instead of the generally accepted prone position. All the children enjoy relaxing in this way and in many cases take to doing it more than the specified once a day.

The principle of "quick" relaxation is relatively new. The stammerer stammers when he gets "worked up" so he learns to relax quickly at the first sign of tension, so that a state of real tension does not develop. He is encouraged to relax "quickly" in situations where he might expect to stammer, for example, when going in to the Headmaster, he learns to wait, relax quickly before going in and then speak slowly and deliberately, thus gaining confidence in his speech.

Neither the method of deep or "quick" relaxation can be adequately explained here, but they are both so simple that the child feels he has got something tangible he can use and which "works" so he is encouraged to go on trying. As one older boy said "I was in carpentry, Miss, and I couldn't see how to do a joint, and I was getting all worked up. I relaxed like you said, looked round for a minute and then I went back and it was easy." It was the athlete who said "You know when you're going to run a race and you've got your foot on the mark, well, I relaxed, and though I should have won anyhow, I've never run so well."

One eleven years old boy came to clinic with a severe stammer complicated by an eye tic, nightly enuresis and behaviour problems of such severity that his private doctor considered they must be due to cerebral disturbances. After using the method for two weeks, his enuresis ceased, the "eye tic" had disappeared and his stammer had decreased in severity. Daily treatment was decided upon, and an immediate intensification of behaviour symptoms resulted, but during three weeks of daily treatment a gradual improvement was effected and the boy's mother reported after a three weeks break from treatment at clinic that he had "been very good indeed."

Another boy of thirteen years had attended the speech clinic from 5—10 years of age, without improvement of his stammer. He was referred to the Child Guidance Clinic where speech treatment was stopped, as being ineffective. On going to technical school, the boy was again referred to us. He could not speak to give his name at the door when he came, and as he strained his head back and grimaced with each word, his speech was almost unintelligible. He left clinic an hour later wishing us a gay "Goodnight, see you Monday." After three weeks this lad was able to sit and speak calmly and coherently, although he occasionally relapsed into rapid speech. The head movement and grimacing had disappeared. School reported "a marked improvement." Daily treatment will be given for a week in the holidays, after which it is expected that his speech will be almost normal on his return to school.

One other boy whose mother said he had attended speech clinic for six months without making progress, reported improvement on each one of five days, between his first and second visits to the speech clinic.

The treatment of young children who do not speak, has continued to be an important feature of this clinic. The value of the playroom cannot be over estimated in treatment of children with this difficulty.

Treatment with the more usual speech defective cases *i.e.* cleft palate, dyslalia, has been continued.

A method of "resting" has been introduced so that children who would normally be discharged, are kept under observation at the clinic for a further period of time. In this way it is possible to confirm that good speech has become established. For this reason, the number of discharges is not so great as the number of new cases admitted to the clinic. Because

of the increasingly good results being obtained in the clinic, more cases are being treated in a lesser number of attendances as will be seen from the statistics given below :

	1950	1951	1952
No. of cases admitted	35	55	85
No. of cases discharged	47	47	56
No. of cases "resting"	—	—	22
No. of cases in attendance, 31st December ...	64	72	79
Total No. of attendances during year ...	2,518	2,888	2,015

No. of cases in attendance, 31st December, 1952 = 79

Stammer	41
Dyslalia	31
Cleft Palate	2
Aphasia	5
	79

Northern Area

Gloria V. Steer.

Kenneth was a small boy who was unable to make a "K." This was by no means his only failing in the realm of speech, but he had reached the point in the treatment when he was ready to tackle the sound. The necessary instruction was given, and after the first fruitless attempts he discovered quite suddenly that he could make the sound. So great was his delight that the next problem was to stop him repeating the sound in order that the session might proceed. He is now busily engaged in teaching each member of his family how to produce this consonant !

This case is one of many who have received treatment at the Speech Clinic in the Northern Area of the City during the past three months. Success has varied according to the factors operating in each case. On the whole progress has been steady, although there have been occasional dramatic moments.

The work has continued in the Health Centres at Portway and Southmead, one session a week being held at each. Attendance at these Clinics has been average, but there has been a noticeable difference in the response of the patients as compared with that of the cases attending the Clinic in Argyle Road.

The success of the latter has been largely due to the additional facilities available, and the greater interest afforded by the play-room. The children take a lively interest in the pictures on the walls, the arrangement of the model farm, and the furnishing of the dolls house, and manoeuvres of cars in and around the toy garage. Many shy children have been introduced to the Clinic, and others have taken their first steps in speech correction through the medium provided by this equipment. For others it provides an outlet and a means of expression for their thoughts and ideas. It is difficult to assess the value of the play-room, but it undoubtedly makes an important contribution to the work of the Speech Clinic.

Little change has occurred in the figures for attendance at the Speech Clinic as compared with previous records, but considerable follow-up work has been necessary on old cases, and it is hoped that this will make way for an increased number of new cases in the near future.

The majority of the cases receiving treatment have defects of an articulatory character, but there is quite a high proportion of stammerers, as a number of these cases are undergoing a "Resting" period and are being reviewed periodically.

Statistics

No. of cases in attendance, 31st December, 1951	...	...	65
No. of new cases during the year	...	...	43
No. discharged	...	...	17
No. in attendance, December, 1952	...	...	91
Total No. of attendances	...	...	1,563

TUBERCULOSIS IN CHILDREN OF SCHOOL AGE

J. E. G. Pearson.

The children's tuberculosis block at Frenchay Hospital takes in cases up to the age of 16 from the Bristol and North Somerset clinical areas, either by direct admission or from any of the other hospitals. It is, as far as possible, an active treatment unit, and as full demands are made upon its limited bed complement of 32, only cases with definite lesions in the chest or elsewhere tend to be admitted for investigation and treatment. The average stay is around six months so that schooling is essential and this is provided under the hospital school arrangements established by the Bristol Education Committee. The majority of the cases have active primary infections complicated to a greater or less extent, but a few children with post-primary disease are treated.

Cases with doubtful activity of this disease but thought likely to benefit from open-air treatment may be sent to Compton Bishop Hospital where there are also educational facilities.

The School Health Service gives valuable help to the Chest Department by examination of contact children and tuberculin testing; as last year's report showed, only a small proportion of positive re-actors had to be referred to the Chest Physician for observation or action, but it may always be useful at a later date to know approximately when tuberculin sensitivity conversion took place in a child.

The mass-radiography of school leavers is also a most helpful investigation; a "stitch in time" is of paramount importance in the treatment of pulmonary tuberculosis at this age.

Chest Diseases

Respiratory diseases must be among the commonest as a cause of absenteeism from school. Children are seen with these conditions in any of the out-patient clinics throughout the Bristol area, whether by the Paediatrician or Chest Physician, especially if the general practitioner considers a recurrent infection requires further elucidation. Similarly, the School Medical Officer may seek a second opinion.

The relationship between many of the conditions seen in the chest and the upper respiratory tract is often very close, and liaison is maintained with the E.N.T. departments, particularly in cases of recurrent suppurative bronchitis, bronchiectasis and allergic disorders.

Provision for in-patient investigation of this group is made at more than one hospital, and there has been a recent addition of a few beds for the purpose at Frenchay Hospital. Provision, of the long term hospital school variety, for these patients is less adequate than in the case of children suffering from primary tuberculosis.

Tuberculosis Contact Clinic

Mary Gibson.

Until August, 1952, the examination of child T.B. contacts was carried out as in 1950 and 1951. When, however, B.C.G. Vaccine became available in May, 1952, a new plan was evolved and came into operation in August. A Health Visitor attached to the T.B. Department now visits the homes of every notified case of T.B., and if there are children in the household explains to the parents what B.C.G. is.

B.C.G. immunisation sessions are held once or twice each month. The child is brought for a preliminary jelly patch test and when it returns for reading of this, three days later, receives B.C.G. vaccination if he shows no reaction to the jelly patch. We are now examining contacts soon after the discovery of the primary case, and are finding a much higher percentage of negative reactors. If the child has a positive jelly patch he is examined and X-rayed within a few days. It is hoped that with the coming into action of the new X-ray unit that this follow-up of positive reactors can be done at the child's second visit, and so save the parents' time.

The aim is to vaccinate the children while the primary case is in hospital or where the primary case is believed to be non-infectious and no segregation has been arranged. Both vaccinated and unvaccinated children are re-examined and re-tested at six monthly intervals. This seems a satisfactory way of linking the B.C.G. and old contact schemes, and vaccination and revaccination can thus be given when necessary. The only children who do not pass through this "B.C.G. filter" are those discovered by the medical officers of the Local Authority. They are first seen at the contact clinic where the rationale of B.C.G. can be explained to the mother, if the child is found to be a negative reactor to the tuberculin skin test.

This year it is found that with the preliminary sorting of negative from positive reactors in the B.C.G. filter, the number of children seen for the first time at the contact clinic is much lower, being confined to known positive reactors and "strays" found by outside sources, and this has allowed the follow-up examinations to be kept up to date.

The figures relating to children seen during the year are as follows :—

	<i>M.C.W.</i>	<i>Primary and Sec. Schools</i>	<i>Total</i>
1. Total number of children seen for the first time...	220	589	809
2. Number found to have been infected but healed at time of first examination or subsequently ...	11	122	133
3. Number found to have been infected and kept under observation	45	206	251
4. Number found to have been infected and referred to Chest Department	1	3	4
5. Number found non-infected at first visit who later developed infection	2	27	29
6. Number who have remained free from infection and were therefore referred for B.C.G. vaccination	118	227	345
7. Number discharged as negative and no longer in contact	13	25	28

Total number who received B.C.G. vaccination from May to December, 1952 = 482

Mass Radiography

E. Evelyn Mawson.

The arrangements for the mass radiography of children due to leave school were continued during the year and 4,137 children were X-Rayed. The details of the cases are given below.

<i>Summary</i>		<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Miniature Films ...	...	2,081	2,056	4,137
Recalled for large films ...	...	68	49	117
Normal large films ...	...	45	25	70
Did not attend ...	...	4	—	4
Significant cases ...	...	18	22	40
Under observation ...	...	1	2	3

Analysis of significant cases.

Of the significant cases, 18 were found on clinical examination to have non-tuberculous conditions as set out below.

					<i>Male</i>	<i>Female</i>	<i>Total</i>
Bony Abnormality ...	...	...	...	...	—	4	4
Emphysema ...	...	...	...	...	—	1	1
Atypical Pneumonia ...	...	...	...	...	1	—	1
Bronchiectasis ...	...	...	...	...	2	2	4
Pleural Thickening ...	...	...	...	...	—	1	1
Benign Spontaneous Bilateral Pneumothorax...	...	...	...	...	1	—	1
Acquired Cardiac Condition ...	...	...	...	...	2	1	3
Congenital Atelectasis ...	...	...	...	...	1	—	1
Diaphragmatic Hernia ...	...	...	...	...	1	—	1
Collapsed Lobe ...	...	...	...	...	1	—	1
					9	9	18

The remaining 44 cases were found to have varying degrees of tuberculous conditions and were dealt with as follows :—

			<i>Disposal</i>				
	<i>Boys</i>	<i>Girls</i>	<i>Total</i>	<i>N.A.</i>	<i>Dr.</i>	<i>Disp.</i>	<i>San.</i>
<i>Active</i>							
Active Primary Lesions ...	1	1	2	—	—	1	1
Post-primary unilateral ...	1	7	8	—	—	5	3
Post-primary bilateral ...	—	1	1	—	—	1	—
Tuberculous pleural effusion	—	—	—	—	—	—	—
<i>Inactive</i>							
Inactive Primary lesion ...	6	4	10	6	1	3	—
Inactive post-primary lesion	1	—	1	—	1	—	—
Total ...	9	13	22	6	2	10	4

Visitors

A. L. S.

One of the results of life in the school health service in a University town is that very frequent requests are made for facilities to be allowed to groups of students, and others, for visits of observation to special schools, and other activities of the school health service. Regularly,

each year, the school health service is asked to provide a programme of observation visits for fifth year medical students, and post-graduates taking the D.P.H. and D.C.H. courses. The programme also includes a talk on the work of the school health service, which is given by me. Students at the University during their clerking at the Children's Hospital are also addressed on two occasions by me on the work of the service and on handicapped children. In addition to these fairly regular commitments, requests are often received from teachers' training colleges as far afield as Gloucester and Bath for escorted visits to clinics, health centres, and special schools. Individual students also often ask, especially at vacation times, for information on the work of the school health service. This is freely given. At times also, the school health service makes arrangements for programmes for groups of visitors from overseas, usually through arrangements made by the British Council. In recent years a number of Sudanese visitors have been entertained in this way. Recently also individuals have visited the Department as part of their visit to see the work of the Local Authority, and have been interested in the work of the school health service. These visitors are always welcome, and we are glad to be able to give information on the work of the school health services in the city.

YOUTH EMPLOYMENT DEPARTMENT

B. M. Dyer.

The Youth Employment Department is responsible for advice and help in all matters concerning the employment of boys and girls from leaving school to their 18th birthday. A senior officer of the Department is charged with the special care of the handicapped and is assisted in her work by the After-care Officer for handicapped children who is seconded to the Youth Employment Department.

Boys and girls are interviewed at their schools and advised on suitable employment in the light of reports supplied by the Heads of the schools and by the School Health Service. In the case of the handicapped it will be appreciated that great importance is attached to their physical and mental limitations. None the less the attitude adopted is "What can this child do?" rather than the negative one of "this, that or the other is impossible." Every encouragement is given the handicapped to triumph over their disadvantages and achieve a success which is to them of the utmost psychological value. These children are frequently conscious of failure; if educationally sub-normal they have done poorly in school, if physically handicapped there have been many activities in which they could not take part. When they successfully start work their whole situation is changed: they are doing a job to the satisfaction of their employers and at the end of the week they have the solid reward of as large a pay packet as their normal brothers and sisters, putting them perhaps for the first time in the position of an equal in the family society and economy. To a boy or girl who is handicapped the job is a very precious thing and it is no wonder that they are frequently the steadiest and most reliable of workers.

The Officer who specialises in this work is notified of all handicapped boys and girls before they leave school, and where necessary she advises the parents of the provisions of the Disabled Persons (Employment) Act so that the child may be registered. A very comprehensive after-care scheme is in being through which the young person is visited at home as often as is needed. In the early days of employment this may be very

frequently indeed, every day is not unknown ! But when the young person is settled in a job and the new social adjustments are made, visits come to be routine calls, until perhaps the job is lost or some other crisis occurs. A separate report on this part of the work follows.

The Department's policy in placing young persons in employment stems from the principle given above, that the boy or girl should be as far as possible treated as a normal child. Now employers expect to train their young workers and the normal school leaver goes to the first job knowing little of the techniques to be acquired. So, except in cases where the handicap is gross, does the handicapped child. If need be special courses are available for those so substantially handicapped that they cannot set out with good hope of success in normal employment, but every attempt is made to minimise the effect of the disability.

Employment generally has been getting more difficult throughout the year, so that it has not been easy to find suitable openings for the handicapped. In a few cases it has taken a matter of weeks before enquiries have proved fruitful. Educationally sub-normal children are found simple manual work in factories, warehouses and on building sites, and physically handicapped children enter a large variety of occupations according to their intelligence and aptitudes.

Those few boys and girls who have not settled down after trying several jobs are advised to apply for a Ministry of Labour Rehabilitation course where a better adjustment to industrial conditions is made. A detailed assessment of the child's difficulties is forwarded to the placing officer. Applications for 17 children were made during the year, all of whom were accepted ; 4 of these were recommended for a further course of vocational training.

There are some children so greatly handicapped that they will never be able to engage in normal employment. Certain very low grade educationally sub-normal children have been referred to the Mental Health Authority for occupation centre training. In 3 cases applications were made to Remploi Ltd., but only one boy was accepted. There are, too, some boys and girls whose physical handicap is so great that they can only be given employment at home. Remploi Ltd. was able to give work to two of these. The problems of occupation for the severely handicapped are very great and the present provision of sheltered and home employment is not at all adequate for the numbers of boys and girls who require it.

AFTER-CARE OF HANDICAPPED CHILDREN Ella P. Weldon.

As indicated in the report of the School Health Service for 1951 an after-care officer for handicapped children was appointed in September, 1951, to work from the Youth Employment Office in conjunction with the Special Services Department and the School Health Service. It was decided that the children referred for supervision should be those educationally sub-normal boys and girls not referred for statutory supervision by the Mental Health Authority, and the physically handicapped children not already dealt with by any other agency. In addition, the maladjusted and the partially sighted children were to be visited. There already exist facilities for the after-care of the blind and the deaf and so they were not included.

To introduce the scheme, a number of visits was made to the special and secondary modern schools, and agencies such as the Mental Health

Department, the Probation Service, the Child Guidance Clinic, Council of Social Service, Crippled Children's Society, and so on. The records of the Youth Employment Office provided a preliminary case load of 115 boys and girls. Approximately half were children from the day special schools for senior boys and senior girls, the remainder being educationally sub-normal or physically handicapped children from secondary modern schools, the schools for delicate and physically handicapped children, and schools for the partially sighted. In many cases it was considered that further visits were unnecessary as the boys and girls appeared well adjusted socially. A number have since returned for advice, and several were found to be unsettled, owing either to personality difficulties or to insecure home background.

In addition, 121 children leaving school since September, 1951, are now receiving after-care. Of these, 56 were educationally sub-normal and were referred from the Special Case Conferences at the Central Health Clinic. Altogether 116 sub-normal children were considered at the Conferences and the remaining 60 were notified to the Mental Health Authority under Section 57 (5) of the Education Act for statutory supervision. Several educationally sub-normal children were referred by the Youth Employment Service, and five of these were passed on to the Mental Health Authority. Two are now attending the Occupation Centre because they are at present unemployable. There seems still a tendency for some educationally sub-normal children at ordinary school, who appear to be in need of supervision, not to be referred by the heads of schools.

The other children receiving after-care suffered from maladjustment or from various physical defects, and had attended day or residential special schools for the partially sighted, the schools for delicate and physically handicapped children, or secondary modern schools. They were referred by the School Health Service, the Child Guidance Clinic, Heads of schools, the Youth Employment Service, Almoners, and other agencies.

Supervision generally begins with an initial visit before the child leaves school. In the case of residential school children, a certain amount may be done to prepare and perhaps improve home conditions before the child returns. Subsequent visiting depends on the child's adjustment and progress. In some cases it is only necessary to visit every few months, in others the children may require to be visited at frequent intervals. It is intended to review the cases of young persons at the age of 18 to decide if further care is necessary. The After-care Officer works in an advisory capacity and introduces the young worker to Medical Services, Employment Offices, Youth Organisations, etc. and may accompany him to various interviews if parents cannot or will not do so.

The aim of the After-care Officer is to help the handicapped child become a responsible and independent member of society, earning his own living and playing a satisfactory part in family and community life. Normal adjustment appears to depend on several factors other than the nature of the handicap, and most difficulties occur both with mentally and physically handicapped boys and girls where there is emotional instability or over-dependence upon others. A great deal depends on the attitude of the parents. Some appear to have an inaccurate impression of the capabilities of their children and may over or underestimate the child's intelligence, and the effect of any physical handicap. Where the family holds together, although the parents themselves are sub-normal or

unstable, almost the only therapy available at present to prevent a social breakdown is a personal relationship with an adult in whom child and parents have confidence. These children constitute a problem well worth tackling as early as possible before they, and later their dependents, become a drain on the resources of the community. Particulars of one or two cases are given below which may be of interest.

A girl suffering from bronchiectasis was referred by the home teacher attached to the open-air school. Visits were commenced while this child was still receiving home tuition, in order to establish friendly relations before it finished. The home-bound child is often at a loss for occupation and misses the outside interests encouraged by the teacher when the home teaching has to cease. In this case it was felt that the girl might be encouraged to lead a slightly more active life without detriment to her health. Consultation with the Hospital Almoner concerned confirmed this. The home teacher suggested part-time sewing classes, and arrangements have been made, with the approval of the specialist, for the girl to attend classes in dressmaking when she "leaves school." She already attends the girls' club at the Youth Employment Office with another home-taught child for whom the medical advisers suggested a fuller social life.

A boy leaving day special school for educationally sub-normal boys was referred to the after-care officer with a warning that he had been lazy at school and might be a difficult lad to place in employment. His parents, though anxious for him to work, were easy going and inclined to spoil him.

It was soon discovered that, with ample pocket money at his disposal, the boy was not bothering to look for work, although he would tell his mother that he called regularly at the Youth Employment Office. It emerged that he rarely went for the interviews arranged for him, and his mother was unable to accompany him. After advising his parents to be firmer with him, the lad was accompanied to an interview and despite his reluctance to take the job offered (he answered "no" when asked by the personnel manager if he would like it) he was engaged. He was visited frequently on starting work and has now settled down. The incentive of the pay packet, which enables him to keep pigeons and buy a bicycle, has proved an adequate stimulus.

A girl who had received orthopaedic treatment for club feet was visited shortly after the after-care scheme was commenced. The girl had left school six months previously. She was found to be depressed, in poor health, and desperately anxious not to be regarded as a cripple. Her job was some distance from her home and the walk proved too much for her. Her disability was aggravated by failure to wear correct shoes.

The after-care officer re-introduced her to the Youth Employment Office, which found her another more congenial job near home. The girl was not registered with a general practitioner and her mother had not co-operated fully with the surgeon. Only by escorting the girl to the hospital and introducing her to the almoner could she be persuaded to seek further medical advice. The after-care officer now sees that the routine visits to hospital are made. The girl has settled down and is learning to accept the limitations that a handicap such as hers imposes on the life of an attractive and active teenager.

SCHOOL CLINICS

<i>Name of Clinic</i>	<i>Address</i>	<i>Clinics Held</i>
Central Health Clinic.	Tower Hill, Bristol 2. Tel. 26602.	Minor Ailment Inspection and Treatment Dental Inspection and Treatment. Ophthalmic, Orthopaedic, Aural and Dermatological Consultant Clinics, Chir- opody Clinic, Enuretic Clinic, Artificial Sunlight Clinic.
Bedminster Health Centre.	Wedmore Vale Bristol 3. Tel. 63798.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment. Ophthalmic and Aural Consultant Clinics.
Speedwell Health Centre.	Whitefield Road, Speedwell, Bristol 5. Tel. 73194.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment. Ophthalmic and Aural Consultant Clinics.
Portway Health Centre.	Shirehampton, Bristol. Tel. Avonm'th 90.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment. Ophthalmic and Aural Consultant Clinics.
Southmead Health Centre.	Monks Park Ave., Southmead, Bristol. Tel. 66414.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment. Ophthalmic and Aural Consultant Clinics.
Brislington Clinic.	Water Lane, Brislington. Tel. 78720.	Minor Ailment Inspection and Treatment.
Knowle Health Centre.	Broadfield Road, Bristol 4. Tel. 76292.	Minor Ailment Inspection and Treatment.
Connaught Road School Clinic.	Connaught Road School, Bristol 4.	Minor Ailment Inspection and Treatment.
Child Guidance Clinic.	7 Brunswick Sq., Bristol 2. Tel. 26181.	
Speech Clinics.	1 Argyle Road, St. Paul's, Bristol 2. Tel. 26760 and Knowle Health Centre.	

In addition minor ailment treatment is given at the following treatment centres :—Verrier Road Clinic, Bristol 5. Throgmorton Road Casualty Centre, Bristol 4. South Bristol Baths, Bristol 3.

STAFF

School Medical Officer and Medical Officer of Health

R. H. PARRY, M.D., F.R.C.P., D.P.H., Q.H.P.

Deputy School Medical Officer and Deputy Medical Officer of Health

R. C. WOFINDEN, M.D., D.P.H., D.P.A.

Senior Medical Officer School Health Service

A. L. SMALLWOOD, M.D., D.C.H., D.P.H.

Assistant School Medical Officers

(Joint Appointments with the Local Health Authority)

Mrs. Monica A. Pauli, M.B., Ch.B., B.A.O.

R. J. Irving Bell, M.R.C.S., L.R.C.P., D.P.H.

Mary Gibson, M.B., Ch.B., D.P.H.

A. M. Fraser, L.R.C.P., L.R.C.S., D.P.H.

B. J. Boulton, M.B., Ch.B.

Clara Jahoda, M.D. (Vienna)

Helen M. Gibb, M.B., Ch.B., D.P.H.

J. E. Kaye, Med. Dip. (Warsaw), D.P.H.

S. W. Terry, M.B., B.S., D.T.M. & H., D.P.H.

J. L. S. James, M.R.C.S., L.R.C.P. (Anaesthetist).

Part-time Assistant School Medical Officers

H. F. M. Finzel, M.D., B.S., M.R.C.S., L.R.C.P.

C. Jean Fraser, M.B., Ch.B., D.P.H.

Consultants—Part-time

Ear, Nose and Throat Clinic	-	G. R. Scarff, M.B., Ch.B., F.R.C.S.(E.) H. D. Fairman, F.R.C.S.
Orthopaedic Clinic	- - -	K. H. Pridie, M.B., B.S., F.R.C.S. D. M. Jones, M.B., B.S., F.R.C.S., M.Ch. (Orth.)
Ophthalmic Clinic	- - -	R. R. Garden, M.A., M.B., D.O.M.S., D.P.H.
Cardio-rheumatic Clinic	- -	C. Bruce Perry, M.D., F.R.C.P.
Dermatological Clinic	- -	R. P. Warin, M.D., M.R.C.P. C. D. Evans, B.A., M.B., B.Ch. (Camb.)
Chiropody Clinic	- - -	L. I. W. Tasker, M.Ch.S.

Dental Surgeons

Senior Dental Officer	-	W. H. B. Stride, L.D.S.
Dental Officers	- - -	A. L. Morgan, L.D.S. Mrs. Marion Bentz, L.D.S. A. H. V. Williams, L.D.S. H. W. Williams, L.D.S. Alice M. Trump, L.D.S. Helena Blinkworth, L.D.S. R. D. Hepburn, L.D.S. (from 1 . 11 . 52) G. W. Vowles, L.D.S. (part-time) H. Hazell, L.D.S. (part-time)

(There are three vacancies on the dental staff)

Oral Hygienist	- - -	Gwendoline A. Lewis (to 30 . 9 . 52) Jean E. Wells (from 12 . 1 . 53)
----------------	-------	--

Child Guidance Clinic

Director	- -	R. F. Barbour, M.A., F.R.C.P., D.P.M.
Assistant Psychiatrist	- -	Mrs. Doris E. Heron, M.R.C.S., L.R.C.P.
Senior Psychologist	- -	R. V. Saunders, M.A., B.Ed.
Psychologists	- - -	Pamela Regan, B.Sc. Mrs. J. Vant, B.A. (from 6 . 5 . 52) C. J. Beedell, B.Sc. Elsie A. W. Hepburn, M.A., Ed.B. (to 30 . 4 . 52)
Senior Psychiatric Social Worker		Mrs. L. Gatliff.
Temporary Social Worker	- -	Mrs. J. Page.

Speech Clinic

Speech Therapists	- - -	Kathleen Coleman, L.C.S.T. Brenda M. Grossmith, L.C.S.T. (to 31 . 8 . 52) Gloria V. Steer, L.C.S.T. (from 1 . 10 . 52)
-------------------	-------	--

Nursing Service

Chief Nursing Officer	- -	Miss L. M. Bendall, S.R.N., S.C.M., H.V.Cert.
Deputy Nursing Officer	- -	Miss V. P. Bowler, S.R.N., S.C.M., H.V.Cert.

The following staff changes took place during the year :—

Dental.

Mr. R. D. Hepburn, L.D.S., was appointed on 1st November, 1952, to fill one of the vacancies on the dental staff. An additional appointment was made but the dentist appointed was unable to take up the appointment. This still leaves three vacancies on the full-time staff of dental surgeons and endeavours are being made to make further appointments.

Miss Gwendoline A. Lewis resigned her appointment as oral hygienist on 30th September, 1952, and was replaced by Miss Jean E. Wells who commenced duty on 12th January, 1953.

Child Guidance Clinic.

Miss E. A. Hepburn, M.A., Ed.B., resigned her appointment as assistant educational psychologist on 30th April, 1952, and was succeeded by Mrs. Jean Vant, B.A., who commenced duty on 6th May, 1952.

The vacancy for a psychiatric social worker was filled temporarily by the appointment of Mrs. Joan Page as social worker from 9th June, 1952.

Speech Clinic.

Miss G. V. Steer, L.C.S.T., was appointed as speech therapist on 1st October, 1952, to fill the vacancy caused by the resignation of Miss B. Grossmith on 31st August, 1952.

Persons other than those whose names appear in the list of staff who have contributed to this report are the following :—

H. Bingham, *Superintendent Welfare Officer.*

Miss E. E. Mawson, M.D., *Medical Officer-in-Charge,*
Mass Radiography Unit.

Miss T. B. Hetherington, *Chief Organiser of School Meals.*

F. J. Redstone, F.R.San.I., F.S.I.A., *Chief Sanitary Inspector.*

J. MacA. Milne, *Chief Organiser of Physical Education.*

Miss C. E. Cooke, *Senior Woman Organiser of Physical Education.*

L. S. F. Bone, *Head of South Bristol Open-Air School.*

J. E. G. Pearson, D.M., F.R.C.P., *Consultant Chest Physician.*

B. M. Dyer, B.A., *Youth Employment Officer.*

Miss E. P. Weldon, *After-Care Officer for Handicapped Children.*

Mrs. Grace Woods, M.B., B.S., D.P.H., *Medical Officer,*
Cerebral Palsy Assessment Clinic.

STATISTICAL TABLES

YEAR ENDED 31st DECEMBER, 1952

TABLE I. MEDICAL INSPECTION OF PUPILS ATTENDING
MAINTAINED PRIMARY AND SECONDARY SCHOOLS
(including special schools)

A.—PERIODIC MEDICAL INSPECTIONS

1951		1952
	Number of Inspections in the prescribed Groups :—	
6,762	Entrants	6,896
3,201	Second Age Group	4,814
3,308	Third Age Group	4,387
13,271	TOTAL	16,097
1,425	Number of other Periodic Inspections	1,428
14,696	GRAND TOTAL	17,525

B.—OTHER INSPECTIONS

30,022	Number of Special Inspections	28,823
33,151	Number of Re-inspections	30,917
63,173	TOTAL	59,740

C.—PUPILS FOUND TO REQUIRE TREATMENT

NUMBER OF INDIVIDUAL PUPILS FOUND AT PERIODIC MEDICAL INSPECTION TO
REQUIRE TREATMENT

(Excluding Dental Diseases and Infestation with Vermin)

1951			1952		
<i>For Def. Vision*</i>	<i>For any other condn.</i>	<i>Total Individ. pupils.</i>	<i>For Def. Vision*</i>	<i>For any other condn.</i>	<i>Total Individ. pupils.</i>
51	513	560	56	546	598
89	175	257	134	294	419
115	141	251	136	160	290
255	829	1,068	326	1,000	1,307
74	69	139	74	66	137
329	898	1,207	400	1,066	1,444

* Excluding Squint.

TABLE II.

A.—RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION

1951					1952			
PERIODIC INSPECTIONS		SPECIAL INSPECTIONS			PERIODIC INSPECTIONS		SPECIAL INSPECTIONS	
No. of Defects		No. of Defects			No. of Defects		No. of Defects	
Req. treatm't	Req. obs. but not treatm't	Req. treatm't	Req. obs. but not treatm't		Req. treatm't	Req. obs. but not treatm't	Req. treatm't	Req. obs. but not treatm't
66	56	3,372	74	Skin	77	34	3,215	79
329	68	1,153	97	Eyes—(a) Vision	400	89	973	151
52	22	43	15	(b) Squint	38	42	35	14
13	21	1,015	35	(c) Other	8	30	937	42
10	18	58	18	Ears—(a) Hearing	23	32	94	16
13	34	241	11	(b) Otitis Media	13	19	292	8
1	5	676	21	(c) Other	1	8	556	30
144	480	1,094	294	Nose or Throat	234	566	964	252
38	45	54	25	Speech	37	49	43	27
10	237	90	115	Cervical Glands	50	220	82	56
19	88	69	80	Heart and Circulation	29	91	45	61
83	213	438	260	Lungs	106	234	334	174
—	7	4	1	Developmental—	—	1	1	1
—	—	4	—	(a) Hernia	1	—	4	1
				(b) Other				
13	59	16	28	Orthopaedic—				
14	19	10	14	(a) Posture	21	57	25	35
76	77	202	61	(b) Flat Foot	20	29	23	12
				(c) Other	103	158	208	67
1	4	5	5	Nervous System—				
4	46	73	40	(a) Epilepsy	2	10	3	25
				(b) Other	4	69	24	51
11	31	44	19	Psychological—				
1	3	11	7	(a) Development	12	9	18	12
613	571	10,034	780	(b) Stability	—	3	7	1
				Other	637	522	9,464	830

B.—CLASSIFICATION OF THE GENERAL CONDITION OF PUPILS
INSPECTED DURING THE YEAR IN THE AGE GROUPS

1				2	A (Good)		B (Fair)		C (Poor)			
Age Groups				No. of Pupils Inspected								
					No.	% of col. 2	No.	% of col. 2	No.	% of col. 2		
Entrants	...	...	...	6,896	3,475	50.39	3,134	45.45	287	4.16		
Second Age Group	...	...	...	4,814	2,381	49.46	2,297	47.71	136	2.83		
Third Age Group	...	...	...	4,387	2,147	48.94	2,187	49.85	53	1.21		
Other Periodic Inspections	...			1,428	600	42.02	803	56.23	25	1.75		
TOTAL				...	...	17,525	8,603	49.09	8,421	48.05	501	2.86
1951	TOTAL			...	...	14,696	6,708	45.65	7,336	49.92	652	4.43

TABLE III. INFESTATION WITH VERMIN

1951		1952
154,071	(i) Total number of examinations in the Schools by the school nurses or other authorised persons	168,786
3,016	(ii) Total number of individual pupils found to be infested ...	2,674
322	(iii) Number of individual pupils in respect of whom cleansing notices were issued (Section 54 (2), Education Act 1944) ...	234
91	(iv) Number of individual pupils in respect of whom cleansing orders were issued (Section 54 (3), Education Act, 1944) ...	76

TABLE IV

TREATMENT OF PUPILS ATTENDING MAINTAINED PRIMARY AND SECONDARY SCHOOLS (INCLUDING SPECIAL SCHOOLS)

Group 1—DISEASES OF THE SKIN

No. of Cases treated or under treatment during the year 1951			No. of Cases treated or under treatment during the year 1952	
by the Authority	Otherwise		by the Authority	Otherwise
—	131	Ringworm—(i) Scalp	—	48
281	7	Ringworm—(ii) Body	194	2
142	1	Scabies	120	2
431	3	Impetigo	488	4
1,810	16	Other Skin Diseases	2,699	147
2,664	158	Total	3,501	203

Group 2—EYE DISEASES, DEFECTIVE VISION AND SQUINT

No. of Cases dealt with 1951			No. of Cases dealt with 1952	
by the Authority	Otherwise		by the Authority	Otherwise
1,796	2	External and other, excluding errors of refraction and squint	1,673	—
1,243	3,591	Errors of Refraction (including squint)	731	4,759
3,039	3,593	Total	2,404	4,759
505	1,528	Number of pupils for whom spectacles were		
291	1,338	(a) Prescribed	282	2,078
		(b) Obtained	240	1,970

Group 3—DISEASES AND DEFECTS OF EAR, NOSE AND THROAT

No. of Cases treated 1951			No. of Cases treated 1952	
by the Authority	Otherwise		by the Authority	Otherwise
—	7	Received operative treatment	—	36
—	1,395	(a) for diseases of the ear	—	1,812
—	145	(b) For adenoids and chronic tonsilitis	—	305
1,267	43	(c) for other nose and throat conditions	1,147	64
1,267	1,590	Received other forms of treatment ...	1,147	2,217
		Total		

Group 4—ORTHOPAEDIC AND POSTURAL DEFECTS

1951			1952	
<i>by the Authority</i>	<i>Otherwise</i>		<i>by the Authority</i>	<i>Otherwise</i>
170		(a) Number treated as in-patients in hospitals	209	
340	91	(b) Number treated otherwise, e.g., in clinics or out-patient departments	339	182

Group 5—CHILD GUIDANCE TREATMENT

1951			1952	
<i>Number of cases treated</i>			<i>Number of cases treated</i>	
<i>In the Authority's Child Guidance Clinics</i>	<i>Elsewhere</i>		<i>In the Authority's Child Guidance Clinics</i>	<i>Elsewhere</i>
306	27	Number of pupils treated at Child Guidance clinics ...	326	79

In addition 480 cases carried over from 1951 were seen during the year.

Group 6—SPEECH THERAPY

1951			1952	
<i>Number of cases treated by the Authority</i>	<i>Otherwise</i>		<i>Number of cases treated by the Authority</i>	<i>Otherwise</i>
205	4	Number of pupils treated by Speech Therapists	256	1

Group 7—OTHER TREATMENT GIVEN

1951			1952	
<i>Number of cases treated by the Authority</i>	<i>Otherwise</i>		<i>Number of cases treated by the Authority</i>	<i>Otherwise</i>
22,792	—	(a) Miscellaneous minor ailments ...	18,443	160
821	—	(b) Other (specify)		
866	33	(1) Chiropody Clinic	827	—
292	—	(2) Ultra Violet Light Clinic ...	565	22
—	—	(3) Enuretic Clinic	378	—
—	—	(4) T.B. Contact Clinic	545	—
		(5) Skin Consultant Clinic ...	228	—
24,771	33	Total	20,986	182

TABLE V.

DENTAL INSPECTION & TREATMENT CARRIED OUT BY THE AUTHORITY

1951	1952
------	------

	(1)	Number of pupils inspected by the Authority's Dental Officers							1932
37,247	(a)	Periodic age groups							36,059
4,453	(b)	Specials							5,632
41,700		Total (1)							41,691
28,182	(2)	Number found to require treatment							28,442
28,119	(3)	Number referred for treatment							28,299
21,879	(4)	Number actually treated							23,553
33,404	(5)	Attendances made by pupils for treatment							36,002
308	(6)	Half-days devoted to—Inspection							277
*3,146		—Treatment							*3,332
3,454		Total (6)							3,609
10,435	(7)	Fillings—Permanent Teeth							11,558
520		—Temporary Teeth							755
10,955		Total (7)							12,313
9,804	(8)	Number of teeth filled—Permanent Teeth							10,725
491		—Temporary Teeth							742
10,295		Total (8)							11,467
4,396	(9)	Extractions—Permanent Teeth							4,850
20,731		—Temporary Teeth							22,470
25,127		Total (9)							27,320
13,940	(10)	Administration of general anaesthetics for extraction							15,244
5,126	(11)	Other operations—Permanent Teeth							6,178
8,438		—Temporary Teeth							7,699
13,564		Total (11)							13,877

*207

In addition 367 sessions were given to the treatment of mothers and young children.

SUMMARY OF WORK DONE DURING THE YEAR

1951		1952
	School Medical Officers :—	
895	No. of Visits to Schools for Periodic Inspection	1,029
14,696	No. of Children Examined at Periodic Inspection in Schools ...	17,525
2,173	No. of Re-examinations in Schools	2,647
927	No. of Special Inspections	919
	Dental Surgeons :—	
37,247	No. of Children Examined—Periodic Inspections	36,059
4,453	—Special Inspections	5,632
21,879	No. of Children Treated	23,553
	School Nurses :—	
	<i>Cleanliness Survey</i>	
3,202	No. of Visits to Schools	3,457
154,071	No. of Examinations of Children	168,786
1,692	No. of Homes visited for uncleanness	1,826
3,291	No. of Homes visited for "following-up," etc.	3,121
	<i>Preparation for Medical Inspection</i>	
895	No. of Visits to Schools	1,029
15,386	No. of children prepared	18,197

SCHOOL CLINICS

1951		1952
<i>No. of Attendances</i>	<i>Work</i>	<i>No. of Attendances</i>
47,276	Central Health Clinic ... Inspection clinic ; treatment of minor ailments ; ear, nose and throat clinic ; skin clinic ; dental treatment ; orthodontic treatment ; refraction clinic ; asthma clinic ; enuretic clinic ; T.B. contact clinic ; treatment of scabies cases ; orthopaedic clinic ; remedial exercises ; electrical treatment ; physiotherapy ; massage and foot treatment.	48,532
7,049	Brislington Clinic ... Inspection clinic ; treatment of minor ailments	6,993
31,155	Bedminster Health Centre Inspection clinic ; treatment of minor ailments ; ear, nose and throat clinic ; dental treatment and refraction clinic	29,456
5,545	South Bristol Baths Clinic Treatment of minor ailments	5,847
19,080	Knowle Casualty Station Treatment of minor ailments	8,802
14,555	Broadfield Road Clinic Inspection clinic ; treatment of minor ailments	14,141
33,131	Speedwell Health Centre Inspection clinic ; treatment of minor ailments ; ear, nose and throat clinic ; dental treatment and refraction clinic	29,007
4,153	Verrier Road Clinic ... Treatment of minor ailments	4,248
16,772	Portway Clinic... .. Inspection clinic ; treatment of minor ailments ; ear, nose and throat clinic ; dental treatment and refraction clinic	18,773
22,798	Southmead Clinic ... Inspection clinic ; treatment of minor ailments ; ear, nose and throat clinic ; dental treatment, and refraction clinic	25,117
7,554	Connaught Road School Clinic Inspection clinic ; treatment of minor ailments	21,886
978	Day E.S.N. Special Schools Treatment of minor ailments	1,156
14,614	Novers Open Air School Remedial exercises and massage ; treatment of minor ailments	13,576
1,050	Cardio-rheumatic Clinic Cases of heart disease and acute rheumatic infection	1,055
9,308	Artificial Light Clinic ... Cases of anaemia and debility	6,484
1,935	Child Guidance Clinic...	1,888
4,328	Speech Clinics	3,733
1,201	Dental Hospital	1,091
242,482	Total Attendances	241,785

SCHOOL NURSES

1951.		1952
	Following is a summary of the Nurses' Survey for the year :—	
2,740	No. of sessions, ...	3,930
87,155	No. of children surveyed	101,701
4,266	No. with defects	3,788
	Of the cases with defects :	
2,859	No. referred to Doctor, ...	2,581
637	No. referred to Doctor for Eye Specialist	490
551	Minor Ailments referred for treatment	492
214	Will attend own doctor or Hospital	213
5	Refusals	12
3,202	Total number of visits to schools in respect of verminous condition and general examination during the year	3,457
154,071	Total number of examinations made	168,786
1,226	Number of re-examinations (included in above total)	1,325

Sunlight Clinic

During 1952, 380 children of school age and 35 children at nursery schools were given a complete course of artificial sunlight treatment. Details of the cases are given below :

Defect	Prim. Secy. and Gram. Schools			Nursery Schools		
	No. Treated	Im-proved	Station-ary	No. Treated	Im-proved	Station-ary
General Debility	77	60	17	10	6	4
Bronchitis-mod.	27	18	9	7	5	2
Bronchitis-slight	15	11	4	1	1	—
Enlarged glands	14	14	—	1	1	—
Malnutrition	20	16	4	3	3	—
Miscellaneous	227	158	69	13	11	2
Total	380	277	103	35	27	8